

# Comparison of 149SNP(2007-10-08 datestamp) and 2010 data

Yu Huang

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## Abstract

Link two data via table accession2ecotype\_complete (expansion of ecotype2accession with same (nativeName,stockparent))

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| 3.259row id1=(8323, 1) (Lc-0) vs row id2=325     | 93  |
| 3.260row id1=(8324, 1) (Ler-1) vs row id2=55     | 93  |
| 3.261row id1=(8325, 1) (Lip-0) vs row id2=326    | 94  |
| 3.262row id1=(8326, 1) (Lis-1) vs row id2=365    | 94  |
| 3.263row id1=(8328, 1) (LL-0) vs row id2=87      | 94  |
| 3.264row id1=(8329, 1) (Lm-2) vs row id2=327     | 94  |
| 3.265row id1=(8332, 1) (Lp2-2) vs row id2=31     | 95  |
| 3.266row id1=(8333, 1) (Lp2-6) vs row id2=32     | 95  |
| 3.267row id1=(8334, 1) (Lu-1) vs row id2=328     | 95  |
| 3.268row id1=(8335, 1) (Lund) vs row id2=292     | 95  |
| 3.269row id1=(8336, 1) (Lz-0) vs row id2=52      | 96  |
| 3.270row id1=(8337, 1) (Mir-0) vs row id2=329    | 96  |
| 3.271row id1=(8338, 1) (Mr-0) vs row id2=77      | 96  |
| 3.272row id1=(8339, 1) (Mrk-0) vs row id2=72     | 97  |
| 3.273row id1=(8340, 1) (Ms-0) vs row id2=92      | 97  |
| 3.274row id1=(8341, 1) (Mt-0) vs row id2=79      | 98  |
| 3.275row id1=(8342, 1) (Mz-0) vs row id2=73      | 98  |
| 3.276row id1=(8343, 1) (Na-1) vs row id2=330     | 98  |
| 3.277row id1=(8344, 1) (Nd-1) vs row id2=56      | 98  |
| 3.278row id1=(8345, 1) (NFA-10) vs row id2=36    | 99  |
| 3.279row id1=(8346, 1) (NFA-8) vs row id2=35     | 99  |
| 3.280row id1=(8347, 1) (Nok-3) vs row id2=80     | 99  |
| 3.281row id1=(8348, 1) (Nw-0) vs row id2=331     | 100 |
| 3.282row id1=(8349, 1) () vs row id2=21          | 100 |
| 3.283row id1=(8350, 1) () vs row id2=22          | 100 |
| 3.284row id1=(8351, 1) (Ost-0) vs row id2=332    | 101 |
| 3.285row id1=(8352, 1) (Oy-0) vs row id2=95      | 101 |
| 3.286row id1=(8353, 1) (Pa-1) vs row id2=333     | 101 |
| 3.287row id1=(8354, 1) (Per-1) vs row id2=334    | 102 |
| 3.288row id1=(8355, 1) (Petergof) vs row id2=335 | 102 |
| 3.289row id1=(8356, 1) (Pi-0) vs row id2=336     | 102 |
| 3.290row id1=(8357, 1) (Pla-0) vs row id2=337    | 103 |
| 3.291row id1=(8358, 1) (Pna-10) vs row id2=8     | 103 |
| 3.292row id1=(8359, 1) (Pna-17) vs row id2=7     | 103 |
| 3.293row id1=(8360, 1) (Pro-0) vs row id2=86     | 103 |
| 3.294row id1=(8361, 1) (Pu2-23) vs row id2=30    | 104 |
| 3.295row id1=(8362, 1) (Pu2-7) vs row id2=29     | 104 |
| 3.296row id1=(8363, 1) (Pu2-8) vs row id2=296    | 104 |
| 3.297row id1=(8364, 1) (Ra-0) vs row id2=69      | 105 |
| 3.298row id1=(8365, 1) (Rak-2) vs row id2=338    | 105 |
| 3.299row id1=(8367, 1) (Ren-1) vs row id2=47     | 105 |
| 3.300row id1=(8368, 1) (Ren-11) vs row id2=48    | 106 |
| 3.301row id1=(8369, 1) (Rev-1) vs row id2=347    | 106 |
| 3.302row id1=(8370, 1) (Rmx-A02) vs row id2=5    | 106 |

|   |            |
|---|------------|
| 3.303row id1=(8371, 1) (Rmx-A180) vs row id2=6      | 106        |
| 3.304row id1=(8372, 1) (RRS-10) vs row id2=2        | 107        |
| 3.305row id1=(8374, 1) (Rsch-4) vs row id2=290      | 107        |
| 3.306row id1=(8375, 1) (Rubezhnoe-1) vs row id2=339 | 107        |
| 3.307row id1=(8376, 1) (Sanna-2) vs row id2=376     | 108        |
| 3.308row id1=(8377, 1) (Santa Clara) vs row id2=340 | 108        |
| 3.309row id1=(8378, 1) (Sap-0) vs row id2=341       | 108        |
| 3.310row id1=(8379, 1) (Se-0) vs row id2=83         | 109        |
| 3.311row id1=(8380, 1) (Sf-1) vs row id2=300        | 109        |
| 3.312row id1=(8381, 1) (Sorbo) vs row id2=90        | 109        |
| 3.313row id1=(8382, 1) (Spr1-2) vs row id2=19       | 109        |
| 3.314row id1=(8383, 1) (Spr1-6) vs row id2=20       | 110        |
| 3.315row id1=(8384, 1) (Sq-1) vs row id2=37         | 110        |
| 3.316row id1=(8385, 1) (Sq-8) vs row id2=38         | 110        |
| 3.317row id1=(8386, 1) (Sr:5) vs row id2=377        | 111        |
| 3.318row id1=(8387, 1) (St-0) vs row id2=342        | 111        |
| 3.319row id1=(8388, 1) (Stw-0) vs row id2=343       | 111        |
| 3.320row id1=(8389, 1) (Ta-0) vs row id2=344        | 111        |
| 3.321row id1=(8390, 1) (Tamm-2) vs row id2=41       | 112        |
| 3.322row id1=(8391, 1) (Tamm-27) vs row id2=42      | 112        |
| 3.323row id1=(8392, 1) (Ts-1) vs row id2=84         | 112        |
| 3.324row id1=(8393, 1) (Ts-5) vs row id2=85         | 113        |
| 3.325row id1=(8394, 1) (Tsu-1) vs row id2=78        | 113        |
| 3.326row id1=(8395, 1) (Tu-0) vs row id2=345        | 113        |
| 3.327row id1=(8396, 1) (Ull2-3) vs row id2=24       | 114        |
| 3.328row id1=(8397, 1) (Ull2-5) vs row id2=23       | 114        |
| 3.329row id1=(8398, 1) (Uod-1) vs row id2=49        | 114        |
| 3.330row id1=(8399, 1) (Uod-7) vs row id2=50        | 114        |
| 3.331row id1=(8400, 1) (Van-0) vs row id2=64        | 115        |
| 3.332row id1=(8401, 1) (V-1) vs row id2=17          | 115        |
| 3.333row id1=(8402, 1) (V-6) vs row id2=18          | 116        |
| 3.334row id1=(8403, 1) (Wa-1) vs row id2=81         | 116        |
| 3.335row id1=(8404, 1) (Wei-0) vs row id2=59        | 116        |
| 3.336row id1=(8405, 1) (Ws-0) vs row id2=60         | 117        |
| 3.337row id1=(8406, 1) (Ws-2) vs row id2=96         | 117        |
| 3.338row id1=(8407, 1) (Wt-5) vs row id2=74         | 117        |
| 3.339row id1=(8408, 1) (Yo-0) vs row id2=61         | 117        |
| 3.340row id1=(8409, 1) (Zdr-1) vs row id2=25        | 118        |
| 3.341row id1=(8410, 1) (Zdr-6) vs row id2=26        | 118        |
| 3.342row id1=(8411, 1) (Rd-0) vs row id2=312        | 119        |
| 3.343row id1=(8429, 1) (N13) vs row id2=58          | 119        |
| <b>4 Diff Matrix for each SNP</b>                   | <b>119</b> |
| 4.1 col id1=AtMSQTsnp 10 vs col id2=AtMSQTsnp 10    | 119        |
| 4.2 col id1=AtMSQTsnp 100 vs col id2=AtMSQTsnp 100  | 119        |
| 4.3 col id1=AtMSQTsnp 101 vs col id2=AtMSQTsnp 101  | 120        |
| 4.4 col id1=AtMSQTsnp 104 vs col id2=AtMSQTsnp 104  | 120        |
| 4.5 col id1=AtMSQTsnp 108 vs col id2=AtMSQTsnp 108  | 120        |
| 4.6 col id1=AtMSQTsnp 11 vs col id2=AtMSQTsnp 11    | 121        |
| 4.7 col id1=AtMSQTsnp 114 vs col id2=AtMSQTsnp 114  | 121        |
| 4.8 col id1=AtMSQTsnp 118 vs col id2=AtMSQTsnp 118  | 122        |
| 4.9 col id1=AtMSQTsnp 12 vs col id2=AtMSQTsnp 12    | 122        |
| 4.10 col id1=AtMSQTsnp 123 vs col id2=AtMSQTsnp 123 | 122        |
| 4.11 col id1=AtMSQTsnp 126 vs col id2=AtMSQTsnp 126 | 123        |
| 4.12 col id1=AtMSQTsnp 128 vs col id2=AtMSQTsnp 128 | 123        |
| 4.13 col id1=AtMSQTsnp 129 vs col id2=AtMSQTsnp 129 | 123        |
| 4.14 col id1=AtMSQTsnp 130 vs col id2=AtMSQTsnp 130 | 124        |
| 4.15 col id1=AtMSQTsnp 132 vs col id2=AtMSQTsnp 132 | 124        |
| 4.16 col id1=AtMSQTsnp 138 vs col id2=AtMSQTsnp 138 | 124        |
| 4.17 col id1=AtMSQTsnp 14 vs col id2=AtMSQTsnp 14   | 125        |
| 4.18 col id1=AtMSQTsnp 140 vs col id2=AtMSQTsnp 140 | 125        |
| 4.19 col id1=AtMSQTsnp 142 vs col id2=AtMSQTsnp 142 | 126        |
| 4.20 col id1=AtMSQTsnp 143 vs col id2=AtMSQTsnp 143 | 126        |
| 4.21 col id1=AtMSQTsnp 145 vs col id2=AtMSQTsnp 145 | 126        |
| 4.22 col id1=AtMSQTsnp 146 vs col id2=AtMSQTsnp 146 | 127        |
| 4.23 col id1=AtMSQTsnp 15 vs col id2=AtMSQTsnp 15   | 127        |
| 4.24 col id1=AtMSQTsnp 155 vs col id2=AtMSQTsnp 155 | 127        |
| 4.25 col id1=AtMSQTsnp 156 vs col id2=AtMSQTsnp 156 | 128        |
| 4.26 col id1=AtMSQTsnp 159 vs col id2=AtMSQTsnp 159 | 128        |
| 4.27 col id1=AtMSQTsnp 164 vs col id2=AtMSQTsnp 164 | 128        |
| 4.28 col id1=AtMSQTsnp 169 vs col id2=AtMSQTsnp 169 | 129        |
| 4.29 col id1=AtMSQTsnp 170 vs col id2=AtMSQTsnp 170 | 129        |
| 4.30 col id1=AtMSQTsnp 173 vs col id2=AtMSQTsnp 173 | 129        |
| 4.31 col id1=AtMSQTsnp 174 vs col id2=AtMSQTsnp 174 | 130        |
| 4.32 col id1=AtMSQTsnp 177 vs col id2=AtMSQTsnp 177 | 130        |
| 4.33 col id1=AtMSQTsnp 18 vs col id2=AtMSQTsnp 18   | 131        |
| 4.34 col id1=AtMSQTsnp 184 vs col id2=AtMSQTsnp 184 | 131        |
| 4.35 col id1=AtMSQTsnp 186 vs col id2=AtMSQTsnp 186 | 131        |
| 4.36 col id1=AtMSQTsnp 187 vs col id2=AtMSQTsnp 187 | 132        |
| 4.37 col id1=AtMSQTsnp 188 vs col id2=AtMSQTsnp 188 | 132        |
| 4.38 col id1=AtMSQTsnp 189 vs col id2=AtMSQTsnp 189 | 132        |



|       |  |     |
|-------|--|-----|
| 4.39  | col id1=AtMSQTsnp 191 vs col id2=AtMSQTsnp 191 | 133 |
| 4.40  | col id1=AtMSQTsnp 194 vs col id2=AtMSQTsnp 194 | 133 |
| 4.41  | col id1=AtMSQTsnp 197 vs col id2=AtMSQTsnp 197 | 133 |
| 4.42  | col id1=AtMSQTsnp 198 vs col id2=AtMSQTsnp 198 | 134 |
| 4.43  | col id1=AtMSQTsnp 2 vs col id2=AtMSQTsnp 2     | 134 |
| 4.44  | col id1=AtMSQTsnp 203 vs col id2=AtMSQTsnp 203 | 134 |
| 4.45  | col id1=AtMSQTsnp 205 vs col id2=AtMSQTsnp 205 | 135 |
| 4.46  | col id1=AtMSQTsnp 21 vs col id2=AtMSQTsnp 21   | 135 |
| 4.47  | col id1=AtMSQTsnp 214 vs col id2=AtMSQTsnp 214 | 136 |
| 4.48  | col id1=AtMSQTsnp 22 vs col id2=AtMSQTsnp 22   | 136 |
| 4.49  | col id1=AtMSQTsnp 220 vs col id2=AtMSQTsnp 220 | 136 |
| 4.50  | col id1=AtMSQTsnp 222 vs col id2=AtMSQTsnp 222 | 137 |
| 4.51  | col id1=AtMSQTsnp 223 vs col id2=AtMSQTsnp 223 | 137 |
| 4.52  | col id1=AtMSQTsnp 231 vs col id2=AtMSQTsnp 231 | 138 |
| 4.53  | col id1=AtMSQTsnp 232 vs col id2=AtMSQTsnp 232 | 138 |
| 4.54  | col id1=AtMSQTsnp 235 vs col id2=AtMSQTsnp 235 | 138 |
| 4.55  | col id1=AtMSQTsnp 237 vs col id2=AtMSQTsnp 237 | 139 |
| 4.56  | col id1=AtMSQTsnp 242 vs col id2=AtMSQTsnp 242 | 139 |
| 4.57  | col id1=AtMSQTsnp 244 vs col id2=AtMSQTsnp 244 | 139 |
| 4.58  | col id1=AtMSQTsnp 249 vs col id2=AtMSQTsnp 249 | 140 |
| 4.59  | col id1=AtMSQTsnp 254 vs col id2=AtMSQTsnp 254 | 140 |
| 4.60  | col id1=AtMSQTsnp 260 vs col id2=AtMSQTsnp 260 | 141 |
| 4.61  | col id1=AtMSQTsnp 263 vs col id2=AtMSQTsnp 263 | 141 |
| 4.62  | col id1=AtMSQTsnp 266 vs col id2=AtMSQTsnp 266 | 141 |
| 4.63  | col id1=AtMSQTsnp 267 vs col id2=AtMSQTsnp 267 | 142 |
| 4.64  | col id1=AtMSQTsnp 27 vs col id2=AtMSQTsnp 27   | 142 |
| 4.65  | col id1=AtMSQTsnp 274 vs col id2=AtMSQTsnp 274 | 143 |
| 4.66  | col id1=AtMSQTsnp 278 vs col id2=AtMSQTsnp 278 | 143 |
| 4.67  | col id1=AtMSQTsnp 279 vs col id2=AtMSQTsnp 279 | 144 |
| 4.68  | col id1=AtMSQTsnp 281 vs col id2=AtMSQTsnp 281 | 144 |
| 4.69  | col id1=AtMSQTsnp 282 vs col id2=AtMSQTsnp 282 | 144 |
| 4.70  | col id1=AtMSQTsnp 285 vs col id2=AtMSQTsnp 285 | 145 |
| 4.71  | col id1=AtMSQTsnp 286 vs col id2=AtMSQTsnp 286 | 145 |
| 4.72  | col id1=AtMSQTsnp 288 vs col id2=AtMSQTsnp 288 | 146 |
| 4.73  | col id1=AtMSQTsnp 29 vs col id2=AtMSQTsnp 29   | 146 |
| 4.74  | col id1=AtMSQTsnp 292 vs col id2=AtMSQTsnp 292 | 146 |
| 4.75  | col id1=AtMSQTsnp 294 vs col id2=AtMSQTsnp 294 | 147 |
| 4.76  | col id1=AtMSQTsnp 30 vs col id2=AtMSQTsnp 30   | 147 |
| 4.77  | col id1=AtMSQTsnp 300 vs col id2=AtMSQTsnp 300 | 148 |
| 4.78  | col id1=AtMSQTsnp 304 vs col id2=AtMSQTsnp 304 | 148 |
| 4.79  | col id1=AtMSQTsnp 306 vs col id2=AtMSQTsnp 306 | 148 |
| 4.80  | col id1=AtMSQTsnp 307 vs col id2=AtMSQTsnp 307 | 149 |
| 4.81  | col id1=AtMSQTsnp 31 vs col id2=AtMSQTsnp 31   | 149 |
| 4.82  | col id1=AtMSQTsnp 310 vs col id2=AtMSQTsnp 310 | 150 |
| 4.83  | col id1=AtMSQTsnp 312 vs col id2=AtMSQTsnp 312 | 150 |
| 4.84  | col id1=AtMSQTsnp 315 vs col id2=AtMSQTsnp 315 | 150 |
| 4.85  | col id1=AtMSQTsnp 321 vs col id2=AtMSQTsnp 321 | 151 |
| 4.86  | col id1=AtMSQTsnp 323 vs col id2=AtMSQTsnp 323 | 151 |
| 4.87  | col id1=AtMSQTsnp 325 vs col id2=AtMSQTsnp 325 | 152 |
| 4.88  | col id1=AtMSQTsnp 327 vs col id2=AtMSQTsnp 327 | 152 |
| 4.89  | col id1=AtMSQTsnp 33 vs col id2=AtMSQTsnp 33   | 152 |
| 4.90  | col id1=AtMSQTsnp 331 vs col id2=AtMSQTsnp 331 | 153 |
| 4.91  | col id1=AtMSQTsnp 334 vs col id2=AtMSQTsnp 334 | 153 |
| 4.92  | col id1=AtMSQTsnp 343 vs col id2=AtMSQTsnp 343 | 154 |
| 4.93  | col id1=AtMSQTsnp 350 vs col id2=AtMSQTsnp 350 | 154 |
| 4.94  | col id1=AtMSQTsnp 351 vs col id2=AtMSQTsnp 351 | 154 |
| 4.95  | col id1=AtMSQTsnp 355 vs col id2=AtMSQTsnp 355 | 155 |
| 4.96  | col id1=AtMSQTsnp 358 vs col id2=AtMSQTsnp 358 | 155 |
| 4.97  | col id1=AtMSQTsnp 359 vs col id2=AtMSQTsnp 359 | 155 |
| 4.98  | col id1=AtMSQTsnp 360 vs col id2=AtMSQTsnp 360 | 156 |
| 4.99  | col id1=AtMSQTsnp 361 vs col id2=AtMSQTsnp 361 | 156 |
| 4.100 | col id1=AtMSQTsnp 368 vs col id2=AtMSQTsnp 368 | 156 |
| 4.101 | col id1=AtMSQTsnp 370 vs col id2=AtMSQTsnp 370 | 157 |
| 4.102 | col id1=AtMSQTsnp 372 vs col id2=AtMSQTsnp 372 | 157 |
| 4.103 | col id1=AtMSQTsnp 373 vs col id2=AtMSQTsnp 373 | 157 |
| 4.104 | col id1=AtMSQTsnp 378 vs col id2=AtMSQTsnp 378 | 158 |
| 4.105 | col id1=AtMSQTsnp 379 vs col id2=AtMSQTsnp 379 | 158 |
| 4.106 | col id1=AtMSQTsnp 38 vs col id2=AtMSQTsnp 38   | 159 |
| 4.107 | col id1=AtMSQTsnp 388 vs col id2=AtMSQTsnp 388 | 159 |
| 4.108 | col id1=AtMSQTsnp 390 vs col id2=AtMSQTsnp 390 | 159 |
| 4.109 | col id1=AtMSQTsnp 392 vs col id2=AtMSQTsnp 392 | 160 |
| 4.110 | col id1=AtMSQTsnp 394 vs col id2=AtMSQTsnp 394 | 160 |
| 4.111 | col id1=AtMSQTsnp 395 vs col id2=AtMSQTsnp 395 | 161 |
| 4.112 | col id1=AtMSQTsnp 397 vs col id2=AtMSQTsnp 397 | 161 |
| 4.113 | col id1=AtMSQTsnp 398 vs col id2=AtMSQTsnp 398 | 161 |
| 4.114 | col id1=AtMSQTsnp 399 vs col id2=AtMSQTsnp 399 | 162 |
| 4.115 | col id1=AtMSQTsnp 4 vs col id2=AtMSQTsnp 4     | 162 |
| 4.116 | col id1=AtMSQTsnp 40 vs col id2=AtMSQTsnp 40   | 162 |
| 4.117 | col id1=AtMSQTsnp 404 vs col id2=AtMSQTsnp 404 | 163 |
| 4.118 | col id1=AtMSQTsnp 406 vs col id2=AtMSQTsnp 406 | 163 |
| 4.119 | col id1=AtMSQTsnp 408 vs col id2=AtMSQTsnp 408 | 163 |

4.120col id1=AtMSQTsnp 409 vs col id2=AtMSQTsnp 409 . . . . . 164

4.121col id1=AtMSQTsnp 41 vs col id2=AtMSQTsnp 41 . . . . . 164

4.122col id1=AtMSQTsnp 410 vs col id2=AtMSQTsnp 410 . . . . . 164

4.123col id1=AtMSQTsnp 412 vs col id2=AtMSQTsnp 412 . . . . . 165

4.124col id1=AtMSQTsnp 415 vs col id2=AtMSQTsnp 415 . . . . . 165

4.125col id1=AtMSQTsnp 47 vs col id2=AtMSQTsnp 47 . . . . . 165

4.126col id1=AtMSQTsnp 48 vs col id2=AtMSQTsnp 48 . . . . . 166

4.127col id1=AtMSQTsnp 49 vs col id2=AtMSQTsnp 49 . . . . . 166

4.128col id1=AtMSQTsnp 53 vs col id2=AtMSQTsnp 53 . . . . . 166

4.129col id1=AtMSQTsnp 54 vs col id2=AtMSQTsnp 54 . . . . . 167

4.130col id1=AtMSQTsnp 57 vs col id2=AtMSQTsnp 57 . . . . . 167

4.131col id1=AtMSQTsnp 58 vs col id2=AtMSQTsnp 58 . . . . . 167

4.132col id1=AtMSQTsnp 60 vs col id2=AtMSQTsnp 60 . . . . . 168

4.133col id1=AtMSQTsnp 61 vs col id2=AtMSQTsnp 61 . . . . . 168

4.134col id1=AtMSQTsnp 62 vs col id2=AtMSQTsnp 62 . . . . . 168

4.135col id1=AtMSQTsnp 63 vs col id2=AtMSQTsnp 63 . . . . . 169

4.136col id1=AtMSQTsnp 65 vs col id2=AtMSQTsnp 65 . . . . . 169

4.137col id1=AtMSQTsnp 67 vs col id2=AtMSQTsnp 67 . . . . . 169

4.138col id1=AtMSQTsnp 69 vs col id2=AtMSQTsnp 69 . . . . . 170

4.139col id1=AtMSQTsnp 73 vs col id2=AtMSQTsnp 73 . . . . . 170

4.140col id1=AtMSQTsnp 76 vs col id2=AtMSQTsnp 76 . . . . . 170

4.141col id1=AtMSQTsnp 8 vs col id2=AtMSQTsnp 8 . . . . . 171

4.142col id1=AtMSQTsnp 85 vs col id2=AtMSQTsnp 85 . . . . . 171

4.143col id1=AtMSQTsnp 87 vs col id2=AtMSQTsnp 87 . . . . . 171

4.144col id1=AtMSQTsnp 88 vs col id2=AtMSQTsnp 88 . . . . . 172

4.145col id1=AtMSQTsnp 9 vs col id2=AtMSQTsnp 9 . . . . . 172

4.146col id1=AtMSQTsnp 90 vs col id2=AtMSQTsnp 90 . . . . . 172

4.147col id1=AtMSQTsnp 91 vs col id2=AtMSQTsnp 91 . . . . . 173

4.148col id1=AtMSQTsnp 92 vs col id2=AtMSQTsnp 92 . . . . . 173

4.149col id1=AtMSQTsnp 97 vs col id2=AtMSQTsnp 97 . . . . . 174

1 Summary

Table 1: data\_y10001101.tsv vs data\_2010\_x\_149SNP\_y1.tsv

|    | 0    | -  | NA  | A    | C    | G    | T    | AC | AG | AT | CG | CT | GT |
|----|------|----|-----|------|------|------|------|----|----|----|----|----|----|
| -  | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3094 | 13 | 222 | 1037 | 848  | 1118 | 720  | 0  | 3  | 0  | 3  | 4  | 1  |
| A  | 5179 | 3  | 296 | 6332 | 13   | 28   | 4    | 4  | 18 | 5  | 0  | 0  | 0  |
| C  | 4283 | 0  | 296 | 6    | 5061 | 9    | 27   | 0  | 0  | 0  | 5  | 9  | 0  |
| G  | 5186 | 0  | 284 | 36   | 2    | 6310 | 7    | 0  | 10 | 0  | 2  | 0  | 3  |
| T  | 4535 | 7  | 244 | 4    | 22   | 7    | 5614 | 0  | 0  | 2  | 0  | 7  | 4  |
| AC | 23   | 0  | 1   | 12   | 0    | 0    | 0    | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 24   | 0  | 3   | 0    | 0    | 0    | 0    | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 7    | 0  | 0   | 0    | 0    | 0    | 1    | 0  | 0  | 1  | 0  | 0  | 0  |
| CG | 5    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 66   | 0  | 3   | 0    | 24   | 0    | 2    | 0  | 0  | 0  | 0  | 1  | 0  |
| GT | 6    | 0  | 0   | 0    | 0    | 1    | 0    | 0  | 0  | 0  | 0  | 0  | 0  |

2 Real Mismatches (deletion/NA excluded)

Table 2: mismatches (deletion/NA excluded)

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 100 | G     | 27      | AtMSQTsnp 100 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 12  | G     | 27      | AtMSQTsnp 12  | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 123 | A     | 27      | AtMSQTsnp 123 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 129 | A     | 27      | AtMSQTsnp 129 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 130 | C     | 27      | AtMSQTsnp 130 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 145 | C     | 27      | AtMSQTsnp 145 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 159 | C     | 27      | AtMSQTsnp 159 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 177 | G     | 27      | AtMSQTsnp 177 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 184 | A     | 27      | AtMSQTsnp 184 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 187 | T     | 27      | AtMSQTsnp 187 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 188 | C     | 27      | AtMSQTsnp 188 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 191 | A     | 27      | AtMSQTsnp 191 | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 194 | T     | 27      | AtMSQTsnp 194 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 2   | G     | 27      | AtMSQTsnp 2   | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 21  | T     | 27      | AtMSQTsnp 21  | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 22  | A     | 27      | AtMSQTsnp 22  | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 220 | A     | 27      | AtMSQTsnp 220 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 223 | A     | 27      | AtMSQTsnp 223 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 249 | G     | 27      | AtMSQTsnp 249 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 254 | A     | 27      | AtMSQTsnp 254 | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 263 | C     | 27      | AtMSQTsnp 263 | T     |

|                   |               |    |     |               |    |
|-------------------|---------------|----|-----|---------------|----|
| (5837, 1)/Bor-1   | AtMSQTsnp 278 | A  | 27  | AtMSQTsnp 278 | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 286 | G  | 27  | AtMSQTsnp 286 | C  |
| (5837, 1)/Bor-1   | AtMSQTsnp 288 | A  | 27  | AtMSQTsnp 288 | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 294 | G  | 27  | AtMSQTsnp 294 | T  |
| (5837, 1)/Bor-1   | AtMSQTsnp 30  | T  | 27  | AtMSQTsnp 30  | C  |
| (5837, 1)/Bor-1   | AtMSQTsnp 300 | G  | 27  | AtMSQTsnp 300 | A  |
| (5837, 1)/Bor-1   | AtMSQTsnp 31  | T  | 27  | AtMSQTsnp 31  | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 310 | A  | 27  | AtMSQTsnp 310 | C  |
| (5837, 1)/Bor-1   | AtMSQTsnp 321 | A  | 27  | AtMSQTsnp 321 | C  |
| (5837, 1)/Bor-1   | AtMSQTsnp 323 | G  | 27  | AtMSQTsnp 323 | A  |
| (5837, 1)/Bor-1   | AtMSQTsnp 325 | C  | 27  | AtMSQTsnp 325 | T  |
| (5837, 1)/Bor-1   | AtMSQTsnp 343 | T  | 27  | AtMSQTsnp 343 | C  |
| (5837, 1)/Bor-1   | AtMSQTsnp 355 | G  | 27  | AtMSQTsnp 355 | T  |
| (5837, 1)/Bor-1   | AtMSQTsnp 358 | G  | 27  | AtMSQTsnp 358 | A  |
| (5837, 1)/Bor-1   | AtMSQTsnp 368 | G  | 27  | AtMSQTsnp 368 | A  |
| (5837, 1)/Bor-1   | AtMSQTsnp 370 | A  | 27  | AtMSQTsnp 370 | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 373 | A  | 27  | AtMSQTsnp 373 | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 379 | A  | 27  | AtMSQTsnp 379 | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 388 | A  | 27  | AtMSQTsnp 388 | C  |
| (5837, 1)/Bor-1   | AtMSQTsnp 390 | C  | 27  | AtMSQTsnp 390 | T  |
| (5837, 1)/Bor-1   | AtMSQTsnp 394 | A  | 27  | AtMSQTsnp 394 | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 398 | G  | 27  | AtMSQTsnp 398 | C  |
| (5837, 1)/Bor-1   | AtMSQTsnp 40  | C  | 27  | AtMSQTsnp 40  | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 406 | A  | 27  | AtMSQTsnp 406 | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 408 | A  | 27  | AtMSQTsnp 408 | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 410 | G  | 27  | AtMSQTsnp 410 | A  |
| (5837, 1)/Bor-1   | AtMSQTsnp 48  | C  | 27  | AtMSQTsnp 48  | T  |
| (5837, 1)/Bor-1   | AtMSQTsnp 49  | C  | 27  | AtMSQTsnp 49  | T  |
| (5837, 1)/Bor-1   | AtMSQTsnp 57  | C  | 27  | AtMSQTsnp 57  | T  |
| (5837, 1)/Bor-1   | AtMSQTsnp 58  | C  | 27  | AtMSQTsnp 58  | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 67  | A  | 27  | AtMSQTsnp 67  | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 76  | C  | 27  | AtMSQTsnp 76  | T  |
| (5837, 1)/Bor-1   | AtMSQTsnp 88  | G  | 27  | AtMSQTsnp 88  | A  |
| (5837, 1)/Bor-1   | AtMSQTsnp 91  | A  | 27  | AtMSQTsnp 91  | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 92  | A  | 27  | AtMSQTsnp 92  | G  |
| (5837, 1)/Bor-1   | AtMSQTsnp 97  | C  | 27  | AtMSQTsnp 97  | G  |
| (6008, 2)/Duk     | AtMSQTsnp 278 | G  | 378 | AtMSQTsnp 278 | A  |
| (6042, 2)/Lom1-1  | AtMSQTsnp 278 | G  | 351 | AtMSQTsnp 278 | A  |
| (6043, 1)/L       | AtMSQTsnp 370 | G  | 11  | AtMSQTsnp 370 | A  |
| (6046, 1)/L       | AtMSQTsnp 370 | G  | 12  | AtMSQTsnp 370 | A  |
| (6088, 1)/Stu1-1  | AtMSQTsnp 274 | T  | 363 | AtMSQTsnp 274 | G  |
| (6897, 1)/Ag-0    | AtMSQTsnp 267 | CT | 67  | AtMSQTsnp 267 | C  |
| (6897, 1)/Ag-0    | AtMSQTsnp 315 | AT | 67  | AtMSQTsnp 315 | T  |
| (6900, 1)/Bil-5   | AtMSQTsnp 370 | G  | 15  | AtMSQTsnp 370 | A  |
| (6901, 1)/Bil-7   | AtMSQTsnp 370 | G  | 16  | AtMSQTsnp 370 | A  |
| (6904, 1)/Br-0    | AtMSQTsnp 267 | CT | 65  | AtMSQTsnp 267 | C  |
| (6907, 1)/CIBC-17 | AtMSQTsnp 114 | A  | 40  | AtMSQTsnp 114 | G  |
| (6907, 1)/CIBC-17 | AtMSQTsnp 159 | T  | 40  | AtMSQTsnp 159 | C  |
| (6907, 1)/CIBC-17 | AtMSQTsnp 223 | A  | 40  | AtMSQTsnp 223 | G  |
| (6907, 1)/CIBC-17 | AtMSQTsnp 244 | A  | 40  | AtMSQTsnp 244 | G  |
| (6907, 1)/CIBC-17 | AtMSQTsnp 267 | CT | 40  | AtMSQTsnp 267 | C  |
| (6907, 1)/CIBC-17 | AtMSQTsnp 307 | T  | 40  | AtMSQTsnp 307 | A  |
| (6907, 1)/CIBC-17 | AtMSQTsnp 321 | A  | 40  | AtMSQTsnp 321 | C  |
| (6907, 1)/CIBC-17 | AtMSQTsnp 327 | T  | 40  | AtMSQTsnp 327 | G  |
| (6907, 1)/CIBC-17 | AtMSQTsnp 334 | C  | 40  | AtMSQTsnp 334 | T  |
| (6907, 1)/CIBC-17 | AtMSQTsnp 415 | G  | 40  | AtMSQTsnp 415 | A  |
| (6908, 1)/CIBC-5  | AtMSQTsnp 223 | G  | 39  | AtMSQTsnp 223 | A  |
| (6908, 1)/CIBC-5  | AtMSQTsnp 244 | G  | 39  | AtMSQTsnp 244 | A  |
| (6908, 1)/CIBC-5  | AtMSQTsnp 304 | T  | 39  | AtMSQTsnp 304 | C  |
| (6908, 1)/CIBC-5  | AtMSQTsnp 306 | C  | 39  | AtMSQTsnp 306 | G  |
| (6908, 1)/CIBC-5  | AtMSQTsnp 307 | A  | 39  | AtMSQTsnp 307 | T  |
| (6908, 1)/CIBC-5  | AtMSQTsnp 321 | C  | 39  | AtMSQTsnp 321 | A  |
| (6908, 1)/CIBC-5  | AtMSQTsnp 327 | G  | 39  | AtMSQTsnp 327 | T  |
| (6908, 1)/CIBC-5  | AtMSQTsnp 334 | T  | 39  | AtMSQTsnp 334 | C  |
| (6910, 1)/Ct-1    | AtMSQTsnp 156 | C  | 76  | AtMSQTsnp 156 | T  |
| (6910, 1)/Ct-1    | AtMSQTsnp 292 | C  | 76  | AtMSQTsnp 292 | T  |
| (6915, 1)/Ei-2    | AtMSQTsnp 138 | T  | 53  | AtMSQTsnp 138 | C  |
| (6915, 1)/Ei-2    | AtMSQTsnp 232 | AC | 53  | AtMSQTsnp 232 | A  |
| (6916, 1)/Est-1   | AtMSQTsnp 164 | A  | 66  | AtMSQTsnp 164 | C  |
| (6916, 1)/Est-1   | AtMSQTsnp 232 | AC | 66  | AtMSQTsnp 232 | A  |
| (6917, 1)/F2      | AtMSQTsnp 138 | CT | 13  | AtMSQTsnp 138 | C  |
| (6918, 1)/F4      | AtMSQTsnp 282 | A  | 14  | AtMSQTsnp 282 | AT |
| (6920, 1)/GOT-22  | AtMSQTsnp 267 | CT | 46  | AtMSQTsnp 267 | C  |
| (6920, 1)/GOT-22  | AtMSQTsnp 306 | G  | 46  | AtMSQTsnp 306 | CG |
| (6921, 1)/GOT-7   | AtMSQTsnp 267 | CT | 45  | AtMSQTsnp 267 | C  |
| (6923, 1)/HR-10   | AtMSQTsnp 138 | CT | 34  | AtMSQTsnp 138 | C  |
| (6924, 1)/HR-5    | AtMSQTsnp 114 | A  | 33  | AtMSQTsnp 114 | AG |
| (6924, 1)/HR-5    | AtMSQTsnp 304 | CT | 33  | AtMSQTsnp 304 | T  |
| (6927, 1)/KNO-10  | AtMSQTsnp 378 | C  | 3   | AtMSQTsnp 378 | G  |
| (6929, 1)/Kondara | AtMSQTsnp 114 | G  | 88  | AtMSQTsnp 114 | A  |
| (6930, 1)/KZ-1    | AtMSQTsnp 15  | C  | 43  | AtMSQTsnp 15  | T  |



|                   |               |    |    |               |    |
|-------------------|---------------|----|----|---------------|----|
| (6932, 1)/Ler-1   | AtMSQTsnp 159 | C  | 55 | AtMSQTsnp 159 | T  |
| (6932, 2)/Ler-1   | AtMSQTsnp 159 | C  | 55 | AtMSQTsnp 159 | T  |
| (6935, 1)/L       | AtMSQTsnp 370 | G  | 12 | AtMSQTsnp 370 | A  |
| (6936, 1)/Lz-0    | AtMSQTsnp 159 | C  | 52 | AtMSQTsnp 159 | T  |
| (6937, 1)/Mrk-0   | AtMSQTsnp 138 | CT | 72 | AtMSQTsnp 138 | C  |
| (6937, 1)/Mrk-0   | AtMSQTsnp 325 | T  | 72 | AtMSQTsnp 325 | C  |
| (6938, 1)/Ms-0    | AtMSQTsnp 173 | G  | 92 | AtMSQTsnp 173 | A  |
| (6938, 1)/Ms-0    | AtMSQTsnp 177 | A  | 92 | AtMSQTsnp 177 | AG |
| (6938, 1)/Ms-0    | AtMSQTsnp 220 | G  | 92 | AtMSQTsnp 220 | A  |
| (6938, 1)/Ms-0    | AtMSQTsnp 222 | T  | 92 | AtMSQTsnp 222 | G  |
| (6938, 1)/Ms-0    | AtMSQTsnp 249 | A  | 92 | AtMSQTsnp 249 | AG |
| (6938, 1)/Ms-0    | AtMSQTsnp 323 | G  | 92 | AtMSQTsnp 323 | AG |
| (6938, 1)/Ms-0    | AtMSQTsnp 331 | C  | 92 | AtMSQTsnp 331 | G  |
| (6939, 1)/Mt-0    | AtMSQTsnp 97  | C  | 79 | AtMSQTsnp 97  | G  |
| (6942, 1)/Nd-1    | AtMSQTsnp 138 | T  | 56 | AtMSQTsnp 138 | C  |
| (6942, 1)/Nd-1    | AtMSQTsnp 232 | AC | 56 | AtMSQTsnp 232 | A  |
| (6943, 1)/NFA-10  | AtMSQTsnp 159 | T  | 36 | AtMSQTsnp 159 | C  |
| (6943, 1)/NFA-10  | AtMSQTsnp 232 | AC | 36 | AtMSQTsnp 232 | A  |
| (6945, 1)/Nok-3   | AtMSQTsnp 334 | T  | 80 | AtMSQTsnp 334 | C  |
| (6946, 1)/Oy-0    | AtMSQTsnp 232 | AC | 95 | AtMSQTsnp 232 | A  |
| (6958, 1)/Ra-0    | AtMSQTsnp 164 | A  | 69 | AtMSQTsnp 164 | C  |
| (6958, 1)/Ra-0    | AtMSQTsnp 321 | C  | 69 | AtMSQTsnp 321 | A  |
| (6959, 1)/REN-1   | AtMSQTsnp 267 | CT | 47 | AtMSQTsnp 267 | C  |
| (6959, 1)/REN-1   | AtMSQTsnp 281 | CT | 47 | AtMSQTsnp 281 | T  |
| (6959, 1)/REN-1   | AtMSQTsnp 388 | C  | 47 | AtMSQTsnp 388 | A  |
| (6959, 1)/REN-1   | AtMSQTsnp 392 | G  | 47 | AtMSQTsnp 392 | A  |
| (6960, 1)/REN-11  | AtMSQTsnp 266 | G  | 48 | AtMSQTsnp 266 | GT |
| (6960, 1)/REN-11  | AtMSQTsnp 267 | CT | 48 | AtMSQTsnp 267 | C  |
| (6960, 1)/REN-11  | AtMSQTsnp 285 | C  | 48 | AtMSQTsnp 285 | CT |
| (6961, 1)/Se-0    | AtMSQTsnp 267 | CT | 83 | AtMSQTsnp 267 | C  |
| (6970, 1)/Ts-1    | AtMSQTsnp 232 | AC | 84 | AtMSQTsnp 232 | A  |
| (6971, 1)/Ts-5    | AtMSQTsnp 267 | CT | 85 | AtMSQTsnp 267 | C  |
| (6971, 1)/Ts-5    | AtMSQTsnp 370 | G  | 85 | AtMSQTsnp 370 | A  |
| (6972, 1)/Tsu-1   | AtMSQTsnp 232 | AC | 78 | AtMSQTsnp 232 | A  |
| (6972, 1)/Tsu-1   | AtMSQTsnp 334 | C  | 78 | AtMSQTsnp 334 | T  |
| (6976, 1)/Uod-7   | AtMSQTsnp 267 | CT | 50 | AtMSQTsnp 267 | C  |
| (6977, 1)/Van-0   | AtMSQTsnp 101 | A  | 64 | AtMSQTsnp 101 | AG |
| (6977, 1)/Van-0   | AtMSQTsnp 108 | G  | 64 | AtMSQTsnp 108 | AG |
| (6977, 1)/Van-0   | AtMSQTsnp 11  | T  | 64 | AtMSQTsnp 11  | CT |
| (6977, 1)/Van-0   | AtMSQTsnp 12  | A  | 64 | AtMSQTsnp 12  | G  |
| (6977, 1)/Van-0   | AtMSQTsnp 188 | C  | 64 | AtMSQTsnp 188 | CT |
| (6977, 1)/Van-0   | AtMSQTsnp 194 | T  | 64 | AtMSQTsnp 194 | AT |
| (6977, 1)/Van-0   | AtMSQTsnp 197 | A  | 64 | AtMSQTsnp 197 | AG |
| (6977, 1)/Van-0   | AtMSQTsnp 203 | A  | 64 | AtMSQTsnp 203 | AT |
| (6977, 1)/Van-0   | AtMSQTsnp 214 | A  | 64 | AtMSQTsnp 214 | AG |
| (6977, 1)/Van-0   | AtMSQTsnp 220 | A  | 64 | AtMSQTsnp 220 | G  |
| (6977, 1)/Van-0   | AtMSQTsnp 242 | C  | 64 | AtMSQTsnp 242 | CT |
| (6977, 1)/Van-0   | AtMSQTsnp 260 | A  | 64 | AtMSQTsnp 260 | AC |
| (6977, 1)/Van-0   | AtMSQTsnp 266 | T  | 64 | AtMSQTsnp 266 | GT |
| (6977, 1)/Van-0   | AtMSQTsnp 281 | T  | 64 | AtMSQTsnp 281 | C  |
| (6977, 1)/Van-0   | AtMSQTsnp 285 | T  | 64 | AtMSQTsnp 285 | CT |
| (6977, 1)/Van-0   | AtMSQTsnp 29  | A  | 64 | AtMSQTsnp 29  | AT |
| (6977, 1)/Van-0   | AtMSQTsnp 323 | A  | 64 | AtMSQTsnp 323 | AG |
| (6977, 1)/Van-0   | AtMSQTsnp 359 | G  | 64 | AtMSQTsnp 359 | GT |
| (6977, 1)/Van-0   | AtMSQTsnp 378 | C  | 64 | AtMSQTsnp 378 | CG |
| (6977, 1)/Van-0   | AtMSQTsnp 390 | T  | 64 | AtMSQTsnp 390 | CT |
| (6977, 1)/Van-0   | AtMSQTsnp 395 | A  | 64 | AtMSQTsnp 395 | AG |
| (6977, 1)/Van-0   | AtMSQTsnp 397 | T  | 64 | AtMSQTsnp 397 | GT |
| (6977, 1)/Van-0   | AtMSQTsnp 410 | G  | 64 | AtMSQTsnp 410 | AG |
| (6977, 1)/Van-0   | AtMSQTsnp 63  | A  | 64 | AtMSQTsnp 63  | AC |
| (6977, 1)/Van-0   | AtMSQTsnp 8   | G  | 64 | AtMSQTsnp 8   | AG |
| (6977, 1)/Van-0   | AtMSQTsnp 90  | C  | 64 | AtMSQTsnp 90  | CT |
| (6977, 1)/Van-0   | AtMSQTsnp 97  | C  | 64 | AtMSQTsnp 97  | CG |
| (6979, 1)/Wei-0   | AtMSQTsnp 232 | AC | 59 | AtMSQTsnp 232 | A  |
| (6980, 1)/Ws-0    | AtMSQTsnp 267 | CT | 60 | AtMSQTsnp 267 | C  |
| (6981, 1)/Ws-2    | AtMSQTsnp 370 | G  | 96 | AtMSQTsnp 370 | A  |
| (6982, 1)/Wt-5    | AtMSQTsnp 334 | C  | 74 | AtMSQTsnp 334 | T  |
| (6984, 1)/Zdr-1   | AtMSQTsnp 232 | AC | 25 | AtMSQTsnp 232 | A  |
| (6984, 1)/Zdr-1   | AtMSQTsnp 260 | A  | 25 | AtMSQTsnp 260 | C  |
| (6985, 1)/Zdr-6   | AtMSQTsnp 267 | CT | 26 | AtMSQTsnp 267 | C  |
| (7438, 1)/N13     | AtMSQTsnp 169 | GT | 58 | AtMSQTsnp 169 | G  |
| (7516, 1)/V-1     | AtMSQTsnp 138 | CT | 17 | AtMSQTsnp 138 | C  |
| (7519, 1)/        | AtMSQTsnp 267 | CT | 22 | AtMSQTsnp 267 | C  |
| (7519, 1)/        | AtMSQTsnp 373 | G  | 22 | AtMSQTsnp 373 | A  |
| (7523, 1)/Pna-17  | AtMSQTsnp 267 | CT | 7  | AtMSQTsnp 267 | C  |
| (7524, 1)/Rmx-A02 | AtMSQTsnp 232 | AC | 5  | AtMSQTsnp 232 | A  |
| (7526, 1)/Pna-10  | AtMSQTsnp 232 | AC | 8  | AtMSQTsnp 232 | A  |
| (7526, 1)/Pna-10  | AtMSQTsnp 267 | CT | 8  | AtMSQTsnp 267 | C  |
| (8214, 1)/Gy-0    | AtMSQTsnp 164 | A  | 68 | AtMSQTsnp 164 | C  |
| (8215, 1)/Fei-0   | AtMSQTsnp 223 | G  | 82 | AtMSQTsnp 223 | AG |
| (8215, 1)/Fei-0   | AtMSQTsnp 232 | AC | 82 | AtMSQTsnp 232 | A  |

|                   |               |    |     |               |    |
|-------------------|---------------|----|-----|---------------|----|
| (8234, 1)/Gul1-2  | AtMSQTsnp 274 | T  | 356 | AtMSQTsnp 274 | G  |
| (8244, 1)/PHW-34  | AtMSQTsnp 274 | G  | 304 | AtMSQTsnp 274 | T  |
| (8246, 1)/NC-6    | AtMSQTsnp 274 | G  | 294 | AtMSQTsnp 274 | T  |
| (8246, 1)/NC-6    | AtMSQTsnp 278 | A  | 294 | AtMSQTsnp 278 | G  |
| (8263, 1)/Bil-7   | AtMSQTsnp 370 | G  | 16  | AtMSQTsnp 370 | A  |
| (8273, 1)/C24     | AtMSQTsnp 138 | CT | 57  | AtMSQTsnp 138 | C  |
| (8276, 1)/CIBC-17 | AtMSQTsnp 114 | A  | 40  | AtMSQTsnp 114 | G  |
| (8276, 1)/CIBC-17 | AtMSQTsnp 159 | T  | 40  | AtMSQTsnp 159 | C  |
| (8276, 1)/CIBC-17 | AtMSQTsnp 223 | A  | 40  | AtMSQTsnp 223 | G  |
| (8276, 1)/CIBC-17 | AtMSQTsnp 244 | A  | 40  | AtMSQTsnp 244 | G  |
| (8276, 1)/CIBC-17 | AtMSQTsnp 307 | T  | 40  | AtMSQTsnp 307 | A  |
| (8276, 1)/CIBC-17 | AtMSQTsnp 321 | A  | 40  | AtMSQTsnp 321 | C  |
| (8276, 1)/CIBC-17 | AtMSQTsnp 327 | T  | 40  | AtMSQTsnp 327 | G  |
| (8276, 1)/CIBC-17 | AtMSQTsnp 334 | C  | 40  | AtMSQTsnp 334 | T  |
| (8276, 1)/CIBC-17 | AtMSQTsnp 415 | G  | 40  | AtMSQTsnp 415 | A  |
| (8277, 1)/CIBC-5  | AtMSQTsnp 138 | CT | 39  | AtMSQTsnp 138 | C  |
| (8277, 1)/CIBC-5  | AtMSQTsnp 223 | G  | 39  | AtMSQTsnp 223 | A  |
| (8277, 1)/CIBC-5  | AtMSQTsnp 244 | G  | 39  | AtMSQTsnp 244 | A  |
| (8277, 1)/CIBC-5  | AtMSQTsnp 304 | T  | 39  | AtMSQTsnp 304 | C  |
| (8277, 1)/CIBC-5  | AtMSQTsnp 306 | C  | 39  | AtMSQTsnp 306 | G  |
| (8277, 1)/CIBC-5  | AtMSQTsnp 307 | A  | 39  | AtMSQTsnp 307 | T  |
| (8277, 1)/CIBC-5  | AtMSQTsnp 321 | C  | 39  | AtMSQTsnp 321 | A  |
| (8277, 1)/CIBC-5  | AtMSQTsnp 334 | T  | 39  | AtMSQTsnp 334 | C  |
| (8280, 1)/Ct-1    | AtMSQTsnp 292 | C  | 76  | AtMSQTsnp 292 | T  |
| (8284, 1)/DraII-1 | AtMSQTsnp 274 | G  | 381 | AtMSQTsnp 274 | T  |
| (8284, 1)/DraII-1 | AtMSQTsnp 278 | A  | 381 | AtMSQTsnp 278 | AG |
| (8284, 1)/DraII-1 | AtMSQTsnp 279 | T  | 381 | AtMSQTsnp 279 | CT |
| (8293, 1)/F4      | AtMSQTsnp 307 | A  | 14  | AtMSQTsnp 307 | T  |
| (8293, 1)/F4      | AtMSQTsnp 97  | C  | 14  | AtMSQTsnp 97  | CG |
| (8294, 1)/Fei-0   | AtMSQTsnp 223 | G  | 82  | AtMSQTsnp 223 | AG |
| (8298, 1)/Got-22  | AtMSQTsnp 306 | G  | 46  | AtMSQTsnp 306 | CG |
| (8309, 1)/HR-5    | AtMSQTsnp 114 | A  | 33  | AtMSQTsnp 114 | AG |
| (8316, 1)/Kin-0   | AtMSQTsnp 138 | CT | 91  | AtMSQTsnp 138 | C  |
| (8317, 1)/Kno-10  | AtMSQTsnp 378 | C  | 3   | AtMSQTsnp 378 | G  |
| (8319, 1)/Kondara | AtMSQTsnp 114 | G  | 88  | AtMSQTsnp 114 | A  |
| (8320, 1)/Kz-1    | AtMSQTsnp 15  | C  | 43  | AtMSQTsnp 15  | T  |
| (8324, 1)/Ler-1   | AtMSQTsnp 159 | C  | 55  | AtMSQTsnp 159 | T  |
| (8336, 1)/Lz-0    | AtMSQTsnp 159 | C  | 52  | AtMSQTsnp 159 | T  |
| (8339, 1)/Mrk-0   | AtMSQTsnp 325 | T  | 72  | AtMSQTsnp 325 | C  |
| (8340, 1)/Ms-0    | AtMSQTsnp 173 | G  | 92  | AtMSQTsnp 173 | A  |
| (8340, 1)/Ms-0    | AtMSQTsnp 177 | A  | 92  | AtMSQTsnp 177 | AG |
| (8340, 1)/Ms-0    | AtMSQTsnp 249 | A  | 92  | AtMSQTsnp 249 | AG |
| (8340, 1)/Ms-0    | AtMSQTsnp 323 | G  | 92  | AtMSQTsnp 323 | AG |
| (8341, 1)/Mt-0    | AtMSQTsnp 138 | CT | 79  | AtMSQTsnp 138 | C  |
| (8345, 1)/NFA-10  | AtMSQTsnp 159 | T  | 36  | AtMSQTsnp 159 | C  |
| (8347, 1)/Nok-3   | AtMSQTsnp 334 | T  | 80  | AtMSQTsnp 334 | C  |
| (8350, 1)/        | AtMSQTsnp 373 | G  | 22  | AtMSQTsnp 373 | A  |
| (8356, 1)/Pi-0    | AtMSQTsnp 274 | G  | 336 | AtMSQTsnp 274 | T  |
| (8356, 1)/Pi-0    | AtMSQTsnp 279 | T  | 336 | AtMSQTsnp 279 | C  |
| (8364, 1)/Ra-0    | AtMSQTsnp 223 | A  | 69  | AtMSQTsnp 223 | G  |
| (8364, 1)/Ra-0    | AtMSQTsnp 321 | C  | 69  | AtMSQTsnp 321 | A  |
| (8364, 1)/Ra-0    | AtMSQTsnp 334 | T  | 69  | AtMSQTsnp 334 | C  |
| (8367, 1)/Ren-1   | AtMSQTsnp 388 | C  | 47  | AtMSQTsnp 388 | A  |
| (8372, 1)/RRS-10  | AtMSQTsnp 140 | A  | 2   | AtMSQTsnp 140 | C  |
| (8380, 1)/Sf-1    | AtMSQTsnp 274 | T  | 300 | AtMSQTsnp 274 | G  |
| (8380, 1)/Sf-1    | AtMSQTsnp 278 | G  | 300 | AtMSQTsnp 278 | A  |
| (8394, 1)/Tsu-1   | AtMSQTsnp 138 | T  | 78  | AtMSQTsnp 138 | C  |
| (8394, 1)/Tsu-1   | AtMSQTsnp 334 | C  | 78  | AtMSQTsnp 334 | T  |
| (8400, 1)/Van-0   | AtMSQTsnp 101 | A  | 64  | AtMSQTsnp 101 | AG |
| (8400, 1)/Van-0   | AtMSQTsnp 108 | G  | 64  | AtMSQTsnp 108 | AG |
| (8400, 1)/Van-0   | AtMSQTsnp 11  | T  | 64  | AtMSQTsnp 11  | CT |
| (8400, 1)/Van-0   | AtMSQTsnp 12  | A  | 64  | AtMSQTsnp 12  | G  |
| (8400, 1)/Van-0   | AtMSQTsnp 188 | C  | 64  | AtMSQTsnp 188 | CT |
| (8400, 1)/Van-0   | AtMSQTsnp 194 | T  | 64  | AtMSQTsnp 194 | AT |
| (8400, 1)/Van-0   | AtMSQTsnp 197 | A  | 64  | AtMSQTsnp 197 | AG |
| (8400, 1)/Van-0   | AtMSQTsnp 203 | A  | 64  | AtMSQTsnp 203 | AT |
| (8400, 1)/Van-0   | AtMSQTsnp 214 | A  | 64  | AtMSQTsnp 214 | AG |
| (8400, 1)/Van-0   | AtMSQTsnp 220 | A  | 64  | AtMSQTsnp 220 | G  |
| (8400, 1)/Van-0   | AtMSQTsnp 242 | C  | 64  | AtMSQTsnp 242 | CT |
| (8400, 1)/Van-0   | AtMSQTsnp 260 | A  | 64  | AtMSQTsnp 260 | AC |
| (8400, 1)/Van-0   | AtMSQTsnp 266 | T  | 64  | AtMSQTsnp 266 | GT |
| (8400, 1)/Van-0   | AtMSQTsnp 267 | C  | 64  | AtMSQTsnp 267 | CT |
| (8400, 1)/Van-0   | AtMSQTsnp 281 | T  | 64  | AtMSQTsnp 281 | C  |
| (8400, 1)/Van-0   | AtMSQTsnp 285 | T  | 64  | AtMSQTsnp 285 | CT |
| (8400, 1)/Van-0   | AtMSQTsnp 29  | A  | 64  | AtMSQTsnp 29  | AT |
| (8400, 1)/Van-0   | AtMSQTsnp 323 | A  | 64  | AtMSQTsnp 323 | AG |
| (8400, 1)/Van-0   | AtMSQTsnp 359 | G  | 64  | AtMSQTsnp 359 | GT |
| (8400, 1)/Van-0   | AtMSQTsnp 378 | C  | 64  | AtMSQTsnp 378 | CG |
| (8400, 1)/Van-0   | AtMSQTsnp 390 | T  | 64  | AtMSQTsnp 390 | CT |
| (8400, 1)/Van-0   | AtMSQTsnp 395 | A  | 64  | AtMSQTsnp 395 | AG |
| (8400, 1)/Van-0   | AtMSQTsnp 397 | T  | 64  | AtMSQTsnp 397 | GT |

|                 |               |    |    |               |    |
|-----------------|---------------|----|----|---------------|----|
| (8400, 1)/Van-0 | AtMSQTsnp 410 | G  | 64 | AtMSQTsnp 410 | AG |
| (8400, 1)/Van-0 | AtMSQTsnp 63  | A  | 64 | AtMSQTsnp 63  | AC |
| (8400, 1)/Van-0 | AtMSQTsnp 65  | A  | 64 | AtMSQTsnp 65  | AG |
| (8400, 1)/Van-0 | AtMSQTsnp 8   | G  | 64 | AtMSQTsnp 8   | AG |
| (8400, 1)/Van-0 | AtMSQTsnp 87  | C  | 64 | AtMSQTsnp 87  | CT |
| (8400, 1)/Van-0 | AtMSQTsnp 90  | C  | 64 | AtMSQTsnp 90  | CT |
| (8400, 1)/Van-0 | AtMSQTsnp 97  | C  | 64 | AtMSQTsnp 97  | CG |
| (8407, 1)/Wt-5  | AtMSQTsnp 334 | C  | 74 | AtMSQTsnp 334 | T  |
| (8408, 1)/Yo-0  | AtMSQTsnp 138 | CT | 61 | AtMSQTsnp 138 | C  |
| (8409, 1)/Zdr-1 | AtMSQTsnp 260 | A  | 25 | AtMSQTsnp 260 | C  |

### 3 Diff Matrix for each strain

#### 3.1 row id1=(5837, 1) (Bor-1) vs row id2=27

Table 3: row id1=(5837, 1) (Bor-1) vs row id2=27

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 0  | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 19 | 5  | 16 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 21 | 3  | 11 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 11 | 2  | 17 | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 1  | 2  | 3  | 1  | 24 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 4: detailed difference for row id1=(5837, 1) (Bor-1) vs row id2=27

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 100 | G     | 27      | AtMSQTsnp 100 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 12  | G     | 27      | AtMSQTsnp 12  | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 123 | A     | 27      | AtMSQTsnp 123 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 129 | A     | 27      | AtMSQTsnp 129 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 130 | C     | 27      | AtMSQTsnp 130 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 145 | C     | 27      | AtMSQTsnp 145 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 159 | C     | 27      | AtMSQTsnp 159 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 177 | G     | 27      | AtMSQTsnp 177 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 184 | A     | 27      | AtMSQTsnp 184 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 187 | T     | 27      | AtMSQTsnp 187 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 188 | C     | 27      | AtMSQTsnp 188 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 191 | A     | 27      | AtMSQTsnp 191 | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 194 | T     | 27      | AtMSQTsnp 194 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 2   | G     | 27      | AtMSQTsnp 2   | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 21  | T     | 27      | AtMSQTsnp 21  | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 22  | A     | 27      | AtMSQTsnp 22  | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 220 | A     | 27      | AtMSQTsnp 220 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 223 | A     | 27      | AtMSQTsnp 223 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 249 | G     | 27      | AtMSQTsnp 249 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 254 | A     | 27      | AtMSQTsnp 254 | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 263 | C     | 27      | AtMSQTsnp 263 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 278 | A     | 27      | AtMSQTsnp 278 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 286 | G     | 27      | AtMSQTsnp 286 | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 288 | A     | 27      | AtMSQTsnp 288 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 294 | G     | 27      | AtMSQTsnp 294 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 30  | T     | 27      | AtMSQTsnp 30  | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 300 | G     | 27      | AtMSQTsnp 300 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 31  | T     | 27      | AtMSQTsnp 31  | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 310 | A     | 27      | AtMSQTsnp 310 | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 321 | A     | 27      | AtMSQTsnp 321 | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 323 | G     | 27      | AtMSQTsnp 323 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 325 | C     | 27      | AtMSQTsnp 325 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 343 | T     | 27      | AtMSQTsnp 343 | C     |
| (5837, 1)/Bor-1 | AtMSQTsnp 355 | G     | 27      | AtMSQTsnp 355 | T     |
| (5837, 1)/Bor-1 | AtMSQTsnp 358 | G     | 27      | AtMSQTsnp 358 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 368 | G     | 27      | AtMSQTsnp 368 | A     |
| (5837, 1)/Bor-1 | AtMSQTsnp 370 | A     | 27      | AtMSQTsnp 370 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 373 | A     | 27      | AtMSQTsnp 373 | G     |
| (5837, 1)/Bor-1 | AtMSQTsnp 379 | A     | 27      | AtMSQTsnp 379 | G     |

|                 |               |   |    |               |   |
|-----------------|---------------|---|----|---------------|---|
| (5837, 1)/Bor-1 | AtMSQTsnp 388 | A | 27 | AtMSQTsnp 388 | C |
| (5837, 1)/Bor-1 | AtMSQTsnp 390 | C | 27 | AtMSQTsnp 390 | T |
| (5837, 1)/Bor-1 | AtMSQTsnp 394 | A | 27 | AtMSQTsnp 394 | G |
| (5837, 1)/Bor-1 | AtMSQTsnp 398 | G | 27 | AtMSQTsnp 398 | C |
| (5837, 1)/Bor-1 | AtMSQTsnp 40  | C | 27 | AtMSQTsnp 40  | G |
| (5837, 1)/Bor-1 | AtMSQTsnp 406 | A | 27 | AtMSQTsnp 406 | G |
| (5837, 1)/Bor-1 | AtMSQTsnp 408 | A | 27 | AtMSQTsnp 408 | G |
| (5837, 1)/Bor-1 | AtMSQTsnp 410 | G | 27 | AtMSQTsnp 410 | A |
| (5837, 1)/Bor-1 | AtMSQTsnp 48  | C | 27 | AtMSQTsnp 48  | T |
| (5837, 1)/Bor-1 | AtMSQTsnp 49  | C | 27 | AtMSQTsnp 49  | T |
| (5837, 1)/Bor-1 | AtMSQTsnp 57  | C | 27 | AtMSQTsnp 57  | T |
| (5837, 1)/Bor-1 | AtMSQTsnp 58  | C | 27 | AtMSQTsnp 58  | G |
| (5837, 1)/Bor-1 | AtMSQTsnp 67  | A | 27 | AtMSQTsnp 67  | G |
| (5837, 1)/Bor-1 | AtMSQTsnp 76  | C | 27 | AtMSQTsnp 76  | T |
| (5837, 1)/Bor-1 | AtMSQTsnp 88  | G | 27 | AtMSQTsnp 88  | A |
| (5837, 1)/Bor-1 | AtMSQTsnp 91  | A | 27 | AtMSQTsnp 91  | G |
| (5837, 1)/Bor-1 | AtMSQTsnp 92  | A | 27 | AtMSQTsnp 92  | G |
| (5837, 1)/Bor-1 | AtMSQTsnp 97  | C | 27 | AtMSQTsnp 97  | G |

### 3.2 row id1=(5837, 2) (Bor-1) vs row id2=27

Table 5: row id1=(5837, 2) (Bor-1) vs row id2=27

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2 | 0 | 1  | 5  | 4  | 12 | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

### 3.3 row id1=(6008, 1) (Duk) vs row id2=378

Table 6: row id1=(6008, 1) (Duk) vs row id2=378

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 28 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

### 3.4 row id1=(6008, 2) (Duk) vs row id2=378

Table 7: row id1=(6008, 2) (Duk) vs row id2=378

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 39 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 37 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |



|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 8: detailed difference for row id1=(6008, 2) (Duk) vs row id2=378

| row id1       | col id1       | call1 | row id2 | col id2       | call2 |
|---------------|---------------|-------|---------|---------------|-------|
| (6008, 2)/Duk | AtMSQTsnp 278 | G     | 378     | AtMSQTsnp 278 | A     |

### 3.5 row id1=(6009, 1) (Eden-1) vs row id2=9

Table 9: row id1=(6009, 1) (Eden-1) vs row id2=9

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 3  | 2  | 1  | 2  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 3  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 3  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

### 3.6 row id1=(6009, 2) (Eden-1) vs row id2=9

Table 10: row id1=(6009, 2) (Eden-1) vs row id2=9

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 3  | 2  | 1  | 2  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 3  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 3  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

### 3.7 row id1=(6009, 3) (Eden-1) vs row id2=9

Table 11: row id1=(6009, 3) (Eden-1) vs row id2=9

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 1  | 1  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 3  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 6  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

### 3.8 row id1=(6016, 1) (Eds-1) vs row id2=374

Table 12: row id1=(6016, 1) (Eds-1) vs row id2=374

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 21 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 26 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

### 3.9 row id1=(6016, 2) (Eds-1) vs row id2=374

Table 13: row id1=(6016, 2) (Eds-1) vs row id2=374

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 46 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 31 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 37 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

### 3.10 row id1=(6024, 1) (Fly2-2) vs row id2=346

Table 14: row id1=(6024, 1) (Fly2-2) vs row id2=346

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 40 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 41 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 37 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

### 3.11 row id1=(6039, 1) (Hovdala-2) vs row id2=368

Table 15: row id1=(6039, 1) (Hovdala-2) vs row id2=368

|   |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|---|---|---|----|---|---|---|---|----|----|----|----|----|----|
|   | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| - | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 30 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 24 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.12 row id1=(6039, 2) (Hovdala-2) vs row id2=368

Table 16: row id1=(6039, 2) (Hovdala-2) vs row id2=368

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |  |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 11 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 35 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 26 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.13 row id1=(6040, 1) (Kni-1) vs row id2=362

Table 17: row id1=(6040, 1) (Kni-1) vs row id2=362

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |  |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 33 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 32 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 27 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.14 row id1=(6040, 2) (Kni-1) vs row id2=362

Table 18: row id1=(6040, 2) (Kni-1) vs row id2=362

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |  |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 42 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 41 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.15 row id1=(6042, 1) (Lom1-1) vs row id2=351

Table 19: row id1=(6042, 1) (Lom1-1) vs row id2=351

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 25 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.16 row id1=(6042, 2) (Lom1-1) vs row id2=351

Table 20: row id1=(6042, 2) (Lom1-1) vs row id2=351

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 42 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 38 | 0 | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 21: detailed difference for row id1=(6042, 2) (Lom1-1) vs row id2=351

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6042, 2)/Lom1-1 | AtMSQTsnp 278 | G     | 351     | AtMSQTsnp 278 | A     |

3.17 row id1=(6043, 1) (L) vs row id2=11

Table 22: row id1=(6043, 1) (L) vs row id2=11

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 0  | 2  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 4  | 1  | 0  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 2 | 0 | 3  | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 23: detailed difference for row id1=(6043, 1) (L) vs row id2=11

| row id1     | col id1       | call1 | row id2 | col id2       | call2 |
|-------------|---------------|-------|---------|---------------|-------|
| (6043, 1)/L | AtMSQTsnp 370 | G     | 11      | AtMSQTsnp 370 | A     |



3.18 row id1=(6043, 2) (L) vs row id2=11

Table 24: row id1=(6043, 2) (L) vs row id2=11

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3 | 0 | 5  | 20 | 12 | 19 | 9  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 1  | 16 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 14 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 4  | 0  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.19 row id1=(6046, 1) (L) vs row id2=12

Table 25: row id1=(6046, 1) (L) vs row id2=12

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 2  | 1  | 0  | 41 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 26: detailed difference for row id1=(6046, 1) (L) vs row id2=12

|             |               |       |         |               |       |
|-------------|---------------|-------|---------|---------------|-------|
| row id1     | col id1       | call1 | row id2 | col id2       | call2 |
| (6046, 1)/L | AtMSQTsnp 370 | G     | 12      | AtMSQTsnp 370 | A     |

3.20 row id1=(6046, 2) (L) vs row id2=12

Table 27: row id1=(6046, 2) (L) vs row id2=12

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 3  | 11 | 7  | 7  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 18 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.21 row id1=(6064, 1) (Nyl-2) vs row id2=375

Table 28: row id1=(6064, 1) (Nyl-2) vs row id2=375

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 20 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 33 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

### 3.22 row id1=(6064, 2) (Nyl-2) vs row id2=375

Table 29: row id1=(6064, 2) (Nyl-2) vs row id2=375

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 46 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 39 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 36 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

### 3.23 row id1=(6074, 1) (-1) vs row id2=364

Table 30: row id1=(6074, 1) (-1) vs row id2=364

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 26 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

### 3.24 row id1=(6074, 2) (-1) vs row id2=364

Table 31: row id1=(6074, 2) (-1) vs row id2=364

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 37 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 40 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.25    row id1=(6088, 1) (Stu1-1) vs row id2=363

Table 32: row id1=(6088, 1) (Stu1-1) vs row id2=363

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 53 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 22 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 32 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 34 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 33: detailed difference for row id1=(6088, 1) (Stu1-1) vs row id2=363

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6088, 1)/Stu1-1 | AtMSQTsnp 274 | T     | 363     | AtMSQTsnp 274 | G     |

3.26    row id1=(6243, 1) (Tottarp-2) vs row id2=370

Table 34: row id1=(6243, 1) (Tottarp-2) vs row id2=370

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 26 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 32 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.27    row id1=(6243, 2) (Tottarp-2) vs row id2=370

Table 35: row id1=(6243, 2) (Tottarp-2) vs row id2=370

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 45 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 30 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 34 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.28 row id1=(6709, 1) (BG-2) vs row id2=299

Table 36: row id1=(6709, 1) (BG-2) vs row id2=299

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 44 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.29 row id1=(6830, 1) (KZ-13) vs row id2=298

Table 37: row id1=(6830, 1) (KZ-13) vs row id2=298

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 35 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 37 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 32 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.30 row id1=(6897, 1) (Ag-0) vs row id2=67

Table 38: row id1=(6897, 1) (Ag-0) vs row id2=67

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 2  | 3  | 3  | 4  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 39: detailed difference for row id1=(6897, 1) (Ag-0) vs row id2=67

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6897, 1)/Ag-0 | AtMSQTsnp 267 | CT    | 67      | AtMSQTsnp 267 | C     |
| (6897, 1)/Ag-0 | AtMSQTsnp 315 | AT    | 67      | AtMSQTsnp 315 | T     |



3.31 row id1=(6898, 1) (An-1) vs row id2=63

Table 40: row id1=(6898, 1) (An-1) vs row id2=63

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 0  | 2  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 2  | 47 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.32 row id1=(6899, 1) (Bay-0) vs row id2=70

Table 41: row id1=(6899, 1) (Bay-0) vs row id2=70

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 1  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 2  | 45 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 1  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.33 row id1=(6900, 1) (Bil-5) vs row id2=15

Table 42: row id1=(6900, 1) (Bil-5) vs row id2=15

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 1  | 0  | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 3  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 2  | 1  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 43: detailed difference for row id1=(6900, 1) (Bil-5) vs row id2=15

|                 |               |       |         |               |       |
|-----------------|---------------|-------|---------|---------------|-------|
| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
| (6900, 1)/Bil-5 | AtMSQTsnp 370 | G     | 15      | AtMSQTsnp 370 | A     |

3.34 row id1=(6901, 1) (Bil-7) vs row id2=16

Table 44: row id1=(6901, 1) (Bil-7) vs row id2=16

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 0  | 0  | 2  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 1  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 45: detailed difference for row id1=(6901, 1) (Bil-7) vs row id2=16

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6901, 1)/Bil-7 | AtMSQTsnp 370 | G     | 16      | AtMSQTsnp 370 | A     |

3.35 row id1=(6902, 1) (Bor-1) vs row id2=27

Table 46: row id1=(6902, 1) (Bor-1) vs row id2=27

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 1  | 0  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 2  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 2  | 0  | 0  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 1  | 0  | 0  | 0  | 38 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.36 row id1=(6903, 1) (Bor-4) vs row id2=28

Table 47: row id1=(6903, 1) (Bor-4) vs row id2=28

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 2  | 0  | 2  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 2  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 2  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.37 row id1=(6904, 1) (Br-0) vs row id2=65

Table 48: row id1=(6904, 1) (Br-0) vs row id2=65

|   |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|---|---|---|----|---|---|---|---|----|----|----|----|----|----|
|   | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| - | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
| NA | 0 | 0 | 0 | 0  | 2  | 3  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 0 | 42 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 2 | 0  | 33 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0 | 0 | 1 | 0  | 0  | 34 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 1 | 0 | 2 | 0  | 0  | 0  | 28 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 1  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 49: detailed difference for row id1=(6904, 1) (Br-0) vs row id2=65

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6904, 1)/Br-0 | AtMSQTsnp 267 | CT    | 65      | AtMSQTsnp 267 | C     |

3.38 row id1=(6905, 1) (Bur-0) vs row id2=93

Table 50: row id1=(6905, 1) (Bur-0) vs row id2=93

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 0  | 2  | 2  | 0  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 1  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 4  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 2 | 0 | 0  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.39 row id1=(6906, 1) (C24) vs row id2=57

Table 51: row id1=(6906, 1) (C24) vs row id2=57

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 1  | 1  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 1  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 2 | 0 | 1  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.40 row id1=(6907, 1) (CIBC-17) vs row id2=40

Table 52: row id1=(6907, 1) (CIBC-17) vs row id2=40

|    |   | - | NA | A  | C  | G  | T | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|---|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 1  | 4  | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 42 | 1  | 3  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 27 | 0  | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 1  | 0  | 31 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|----|---|---|---|---|---|---|
| T  | 1 | 0 | 0 | 1 | 1 | 1 | 28 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 1 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 53: detailed difference for row id1=(6907, 1) (CIBC-17) vs row id2=40

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6907, 1)/CIBC-17 | AtMSQTsnp 114 | A     | 40      | AtMSQTsnp 114 | G     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 159 | T     | 40      | AtMSQTsnp 159 | C     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 223 | A     | 40      | AtMSQTsnp 223 | G     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 244 | A     | 40      | AtMSQTsnp 244 | G     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 267 | CT    | 40      | AtMSQTsnp 267 | C     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 307 | T     | 40      | AtMSQTsnp 307 | A     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 321 | A     | 40      | AtMSQTsnp 321 | C     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 327 | T     | 40      | AtMSQTsnp 327 | G     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 334 | C     | 40      | AtMSQTsnp 334 | T     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 415 | G     | 40      | AtMSQTsnp 415 | A     |

3.41 row id1=(6908, 1) (CIBC-5) vs row id2=39

Table 54: row id1=(6908, 1) (CIBC-5) vs row id2=39

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 0  | 2  | 4  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 34 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 1  | 30 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 2  | 0  | 39 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 2  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 55: detailed difference for row id1=(6908, 1) (CIBC-5) vs row id2=39

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6908, 1)/CIBC-5 | AtMSQTsnp 223 | G     | 39      | AtMSQTsnp 223 | A     |
| (6908, 1)/CIBC-5 | AtMSQTsnp 244 | G     | 39      | AtMSQTsnp 244 | A     |
| (6908, 1)/CIBC-5 | AtMSQTsnp 304 | T     | 39      | AtMSQTsnp 304 | C     |
| (6908, 1)/CIBC-5 | AtMSQTsnp 306 | C     | 39      | AtMSQTsnp 306 | G     |
| (6908, 1)/CIBC-5 | AtMSQTsnp 307 | A     | 39      | AtMSQTsnp 307 | T     |
| (6908, 1)/CIBC-5 | AtMSQTsnp 321 | C     | 39      | AtMSQTsnp 321 | A     |
| (6908, 1)/CIBC-5 | AtMSQTsnp 327 | G     | 39      | AtMSQTsnp 327 | T     |
| (6908, 1)/CIBC-5 | AtMSQTsnp 334 | T     | 39      | AtMSQTsnp 334 | C     |

3.42 row id1=(6909, 1) (Col-0) vs row id2=62

Table 56: row id1=(6909, 1) (Col-0) vs row id2=62

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 2  | 1  | 0  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 44 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |



|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.43    row id1=(6910, 1) (Ct-1) vs row id2=76

Table 57: row id1=(6910, 1) (Ct-1) vs row id2=76

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 0  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 5  | 0  | 32 | 0  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 58: detailed difference for row id1=(6910, 1) (Ct-1) vs row id2=76

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6910, 1)/Ct-1 | AtMSQTsnp 156 | C     | 76      | AtMSQTsnp 156 | T     |
| (6910, 1)/Ct-1 | AtMSQTsnp 292 | C     | 76      | AtMSQTsnp 292 | T     |

3.44    row id1=(6911, 1) (Cvi-0) vs row id2=51

Table 59: row id1=(6911, 1) (Cvi-0) vs row id2=51

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 0  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 1 | 1  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 4  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.45    row id1=(6912, 1) (Eden-1) vs row id2=9

Table 60: row id1=(6912, 1) (Eden-1) vs row id2=9

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 4  | 4  | 4  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 3  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 5  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

3.46    row id1=(6913, 1) (Eden-2) vs row id2=10

Table 61: row id1=(6913, 1) (Eden-2) vs row id2=10

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 1 | 0  | 0  | 1  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 3  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 5  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 4  | 0  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.47    row id1=(6914, 1) (Edi-0) vs row id2=94

Table 62: row id1=(6914, 1) (Edi-0) vs row id2=94

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 0  | 2  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 4  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.48    row id1=(6915, 1) (Ei-2) vs row id2=53

Table 63: row id1=(6915, 1) (Ei-2) vs row id2=53

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 1  | 2  | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 3  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 2  | 0  | 0  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 1  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 64: detailed difference for row id1=(6915, 1) (Ei-2) vs row id2=53

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6915, 1)/Ei-2 | AtMSQTsnp 138 | T     | 53      | AtMSQTsnp 138 | C     |
| (6915, 1)/Ei-2 | AtMSQTsnp 232 | AC    | 53      | AtMSQTsnp 232 | A     |

3.49 row id1=(6916, 1) (Est-1) vs row id2=66

Table 65: row id1=(6916, 1) (Est-1) vs row id2=66

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 0  | 1  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 37 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 3  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 66: detailed difference for row id1=(6916, 1) (Est-1) vs row id2=66

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6916, 1)/Est-1 | AtMSQTsnp 164 | A     | 66      | AtMSQTsnp 164 | C     |
| (6916, 1)/Est-1 | AtMSQTsnp 232 | AC    | 66      | AtMSQTsnp 232 | A     |

3.50 row id1=(6917, 1) (F2) vs row id2=13

Table 67: row id1=(6917, 1) (F2) vs row id2=13

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 2  | 0  | 2  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 5  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 68: detailed difference for row id1=(6917, 1) (F2) vs row id2=13

| row id1      | col id1       | call1 | row id2 | col id2       | call2 |
|--------------|---------------|-------|---------|---------------|-------|
| (6917, 1)/F2 | AtMSQTsnp 138 | CT    | 13      | AtMSQTsnp 138 | C     |

3.51 row id1=(6918, 1) (F4) vs row id2=14

Table 69: row id1=(6918, 1) (F4) vs row id2=14

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 0  | 2  | 2  | 0  | 0  | 0  | 1  | 0  | 0  |
| A  | 0 | 0 | 2  | 44 | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 70: detailed difference for row id1=(6918, 1) (F4) vs row id2=14

| row id1      | col id1       | call1 | row id2 | col id2       | call2 |
|--------------|---------------|-------|---------|---------------|-------|
| (6918, 1)/F4 | AtMSQTsnp 282 | A     | 14      | AtMSQTsnp 282 | AT    |

3.52 row id1=(6919, 1) (Ga-0) vs row id2=71

Table 71: row id1=(6919, 1) (Ga-0) vs row id2=71

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 4  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 3  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 2 | 1 | 2  | 0  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.53 row id1=(6920, 1) (GOT-22) vs row id2=46

Table 72: row id1=(6920, 1) (GOT-22) vs row id2=46

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 2  | 1  | 1  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 42 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 1  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 73: detailed difference for row id1=(6920, 1) (GOT-22) vs row id2=46

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6920, 1)/GOT-22 | AtMSQTsnp 267 | CT    | 46      | AtMSQTsnp 267 | C     |
| (6920, 1)/GOT-22 | AtMSQTsnp 306 | G     | 46      | AtMSQTsnp 306 | CG    |

3.54 row id1=(6921, 1) (GOT-7) vs row id2=45

Table 74: row id1=(6921, 1) (GOT-7) vs row id2=45

|    |   | - | NA | A  | C  | G  | T | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|---|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 0  | 1  | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 45 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 26 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 1  | 0  | 0  | 36 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|----|---|---|---|---|---|---|
| T  | 0 | 0 | 1 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 1 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 75: detailed difference for row id1=(6921, 1) (GOT-7) vs row id2=45

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6921, 1)/GOT-7 | AtMSQTsnp 267 | CT    | 45      | AtMSQTsnp 267 | C     |

3.55 row id1=(6922, 1) (Gu-0) vs row id2=54

Table 76: row id1=(6922, 1) (Gu-0) vs row id2=54

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 8  | 10 | 16 | 8  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.56 row id1=(6923, 1) (HR-10) vs row id2=34

Table 77: row id1=(6923, 1) (HR-10) vs row id2=34

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 0  | 1  | 2  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 2  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 78: detailed difference for row id1=(6923, 1) (HR-10) vs row id2=34

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6923, 1)/HR-10 | AtMSQTsnp 138 | CT    | 34      | AtMSQTsnp 138 | C     |

3.57 row id1=(6924, 1) (HR-5) vs row id2=33

Table 79: row id1=(6924, 1) (HR-5) vs row id2=33

|   |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|---|---|---|----|---|---|---|---|----|----|----|----|----|----|
|   | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| - | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
| NA | 0 | 0 | 1 | 1  | 3  | 2  | 1  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 0 | 40 | 0  | 0  | 0  | 0 | 1 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 2 | 0  | 37 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0 | 0 | 0 | 0  | 0  | 30 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 1 | 0  | 0  | 0  | 29 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 0  | 0  | 1  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 80: detailed difference for row id1=(6924, 1) (HR-5) vs row id2=33

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6924, 1)/HR-5 | AtMSQTsnp 114 | A     | 33      | AtMSQTsnp 114 | AG    |
| (6924, 1)/HR-5 | AtMSQTsnp 304 | CT    | 33      | AtMSQTsnp 304 | T     |

3.58 row id1=(6925, 1) (Kas-2) vs row id2=75

Table 81: row id1=(6925, 1) (Kas-2) vs row id2=75

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 2  | 5  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 3  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.59 row id1=(6926, 1) (Kin-0) vs row id2=91

Table 82: row id1=(6926, 1) (Kin-0) vs row id2=91

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 0  | 2  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 3  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 5  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 2  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.60 row id1=(6927, 1) (KNO-10) vs row id2=3

Table 83: row id1=(6927, 1) (KNO-10) vs row id2=3

|    |   |   |    |    |    |   |   |    |    |    |    |    |    |
|----|---|---|----|----|----|---|---|----|----|----|----|----|----|
|    |   |   |    |    |    |   |   |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G | T | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 1  | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 41 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 3 | 0 | 0  | 0  | 21 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |    |    |   |   |   |   |   |   |
|----|---|---|---|---|---|----|----|---|---|---|---|---|---|
| G  | 1 | 0 | 3 | 0 | 0 | 35 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 2 | 0 | 5 | 0 | 0 | 0  | 29 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 1 | 0 | 0 | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 84: detailed difference for row id1=(6927, 1) (KNO-10) vs row id2=3

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6927, 1)/KNO-10 | AtMSQTsnp 378 | C     | 3       | AtMSQTsnp 378 | G     |

3.61 row id1=(6928, 1) (KNO-18) vs row id2=4

Table 85: row id1=(6928, 1) (KNO-18) vs row id2=4

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 2  | 2  | 0  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 4  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 1  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 3 | 0 | 2  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 2  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.62 row id1=(6929, 1) (Kondara) vs row id2=88

Table 86: row id1=(6929, 1) (Kondara) vs row id2=88

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 1 | 0  | 0  | 2  | 1  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 3  | 41 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 1  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 1  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 87: detailed difference for row id1=(6929, 1) (Kondara) vs row id2=88

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6929, 1)/Kondara | AtMSQTsnp 114 | G     | 88      | AtMSQTsnp 114 | A     |

3.63 row id1=(6930, 1) (KZ-1) vs row id2=43

Table 88: row id1=(6930, 1) (KZ-1) vs row id2=43

|  |   |   |    |   |   |   |   |    |    |    |    |    |    |
|--|---|---|----|---|---|---|---|----|----|----|----|----|----|
|  |   |   |    |   |   |   |   |    |    |    |    |    |    |
|  |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
| -  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 0 | 0 | 0 | 0  | 3  | 2  | 1  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 4 | 39 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 4 | 0  | 28 | 0  | 1  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0 | 0 | 2 | 0  | 0  | 32 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 1 | 0  | 0  | 0  | 32 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 89: detailed difference for row id1=(6930, 1) (KZ-1) vs row id2=43

| row id1        | col id1      | call1 | row id2 | col id2      | call2 |
|----------------|--------------|-------|---------|--------------|-------|
| (6930, 1)/KZ-1 | AtMSQTsnp 15 | C     | 43      | AtMSQTsnp 15 | T     |

3.64 row id1=(6931, 1) (KZ-9) vs row id2=44

Table 90: row id1=(6931, 1) (KZ-9) vs row id2=44

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 1 | 0  | 2  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.65 row id1=(6932, 1) (Ler-1) vs row id2=55

Table 91: row id1=(6932, 1) (Ler-1) vs row id2=55

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 1  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 42 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 25 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 92: detailed difference for row id1=(6932, 1) (Ler-1) vs row id2=55

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6932, 1)/Ler-1 | AtMSQTsnp 159 | C     | 55      | AtMSQTsnp 159 | T     |

3.66 row id1=(6932, 2) (Ler-1) vs row id2=55



Table 93: row id1=(6932, 2) (Ler-1) vs row id2=55

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 1  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 42 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 26 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 41 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 94: detailed difference for row id1=(6932, 2) (Ler-1) vs row id2=55

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6932, 2)/Ler-1 | AtMSQTsnp 159 | C     | 55      | AtMSQTsnp 159 | T     |

3.67 row id1=(6933, 1) (LL-0) vs row id2=87

Table 95: row id1=(6933, 1) (LL-0) vs row id2=87

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 0  | 0  | 4  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 2  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 2  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.68 row id1=(6934, 1) (L) vs row id2=11

Table 96: row id1=(6934, 1) (L) vs row id2=11

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1 | 0 | 1  | 6  | 3  | 3  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 2  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 4  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 2  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.69 row id1=(6935, 1) (L) vs row id2=12

Table 97: row id1=(6935, 1) (L) vs row id2=12

|  |  |   |    |   |   |   |   |    |    |    |    |    |    |  |
|--|--|---|----|---|---|---|---|----|----|----|----|----|----|--|
|  |  |   |    |   |   |   |   |    |    |    |    |    |    |  |
|  |  | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |

|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
|    | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| -  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 0 | 0 | 0 | 2  | 2  | 2  | 1  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 2 | 34 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 2 | 0  | 23 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 1 | 0 | 2 | 1  | 0  | 40 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 1 | 0  | 0  | 0  | 36 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 98: detailed difference for row id1=(6935, 1) (L) vs row id2=12

| row id1     | col id1       | call1 | row id2 | col id2       | call2 |
|-------------|---------------|-------|---------|---------------|-------|
| (6935, 1)/L | AtMSQTsnp 370 | G     | 12      | AtMSQTsnp 370 | A     |

3.70 row id1=(6936, 1) (Lz-0) vs row id2=52

Table 99: row id1=(6936, 1) (Lz-0) vs row id2=52

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 2  | 2  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 47 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 4  | 0  | 31 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 1  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 100: detailed difference for row id1=(6936, 1) (Lz-0) vs row id2=52

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6936, 1)/Lz-0 | AtMSQTsnp 159 | C     | 52      | AtMSQTsnp 159 | T     |

3.71 row id1=(6937, 1) (Mrk-0) vs row id2=72

Table 101: row id1=(6937, 1) (Mrk-0) vs row id2=72

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 2  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 4  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 1 | 0  | 0  | 1  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 102: detailed difference for row id1=(6937, 1) (Mrk-0) vs row id2=72

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6937, 1)/Mrk-0 | AtMSQTsnp 138 | CT    | 72      | AtMSQTsnp 138 | C     |
| (6937, 1)/Mrk-0 | AtMSQTsnp 325 | T     | 72      | AtMSQTsnp 325 | C     |

3.72 row id1=(6938, 1) (Ms-0) vs row id2=92

Table 103: row id1=(6938, 1) (Ms-0) vs row id2=92

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 0  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 2 | 0 | 2  | 31 | 0  | 0  | 0  | 0  | 2  | 0  | 0  | 0  | 0  |
| C  | 4 | 0 | 0  | 0  | 32 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 2 | 0 | 3  | 2  | 0  | 30 | 0  | 0  | 1  | 0  | 0  | 0  | 0  |
| T  | 2 | 0 | 1  | 0  | 0  | 1  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 104: detailed difference for row id1=(6938, 1) (Ms-0) vs row id2=92

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6938, 1)/Ms-0 | AtMSQTsnp 173 | G     | 92      | AtMSQTsnp 173 | A     |
| (6938, 1)/Ms-0 | AtMSQTsnp 177 | A     | 92      | AtMSQTsnp 177 | AG    |
| (6938, 1)/Ms-0 | AtMSQTsnp 220 | G     | 92      | AtMSQTsnp 220 | A     |
| (6938, 1)/Ms-0 | AtMSQTsnp 222 | T     | 92      | AtMSQTsnp 222 | G     |
| (6938, 1)/Ms-0 | AtMSQTsnp 249 | A     | 92      | AtMSQTsnp 249 | AG    |
| (6938, 1)/Ms-0 | AtMSQTsnp 323 | G     | 92      | AtMSQTsnp 323 | AG    |
| (6938, 1)/Ms-0 | AtMSQTsnp 331 | C     | 92      | AtMSQTsnp 331 | G     |

3.73 row id1=(6939, 1) (Mt-0) vs row id2=79

Table 105: row id1=(6939, 1) (Mt-0) vs row id2=79

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 11 | 41 | 31 | 36 | 27 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 106: detailed difference for row id1=(6939, 1) (Mt-0) vs row id2=79

| row id1        | col id1      | call1 | row id2 | col id2      | call2 |
|----------------|--------------|-------|---------|--------------|-------|
| (6939, 1)/Mt-0 | AtMSQTsnp 97 | C     | 79      | AtMSQTsnp 97 | G     |

3.74 row id1=(6940, 1) (Mz-0) vs row id2=73

Table 107: row id1=(6940, 1) (Mz-0) vs row id2=73

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 1  | 2  | 3  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 2  | 0  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.75 row id1=(6942, 1) (Nd-1) vs row id2=56

Table 108: row id1=(6942, 1) (Nd-1) vs row id2=56

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 47 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 1 | 0 | 1  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 1  | 0  | 1  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 109: detailed difference for row id1=(6942, 1) (Nd-1) vs row id2=56

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6942, 1)/Nd-1 | AtMSQTsnp 138 | T     | 56      | AtMSQTsnp 138 | C     |
| (6942, 1)/Nd-1 | AtMSQTsnp 232 | AC    | 56      | AtMSQTsnp 232 | A     |

3.76 row id1=(6943, 1) (NFA-10) vs row id2=36

Table 110: row id1=(6943, 1) (NFA-10) vs row id2=36

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 1  | 1  | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 3  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 1  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 111: detailed difference for row id1=(6943, 1) (NFA-10) vs row id2=36

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6943, 1)/NFA-10 | AtMSQTsnp 159 | T     | 36      | AtMSQTsnp 159 | C     |
| (6943, 1)/NFA-10 | AtMSQTsnp 232 | AC    | 36      | AtMSQTsnp 232 | A     |

3.77 row id1=(6944, 1) (NFA-8) vs row id2=35

Table 112: row id1=(6944, 1) (NFA-8) vs row id2=35

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 1  | 0  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 1  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.78 row id1=(6945, 1) (Nok-3) vs row id2=80

Table 113: row id1=(6945, 1) (Nok-3) vs row id2=80

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 1  | 3  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 43 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 1  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 2 | 0 | 2  | 0  | 1  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 114: detailed difference for row id1=(6945, 1) (Nok-3) vs row id2=80

|                 |               |       |         |               |       |
|-----------------|---------------|-------|---------|---------------|-------|
| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
| (6945, 1)/Nok-3 | AtMSQTsnp 334 | T     | 80      | AtMSQTsnp 334 | C     |

3.79 row id1=(6946, 1) (Oy-0) vs row id2=95

Table 115: row id1=(6946, 1) (Oy-0) vs row id2=95

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 1  | 0  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 2 | 0 | 1  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 5  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 116: detailed difference for row id1=(6946, 1) (Oy-0) vs row id2=95

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6946, 1)/Oy-0 | AtMSQTsnp 232 | AC    | 95      | AtMSQTsnp 232 | A     |

3.80 row id1=(6951, 1) (Pu2-23) vs row id2=30

Table 117: row id1=(6951, 1) (Pu2-23) vs row id2=30

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 0  | 1  | 0  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 1  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 0  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.81 row id1=(6956, 1) (Pu2-7) vs row id2=29

Table 118: row id1=(6956, 1) (Pu2-7) vs row id2=29

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 4  | 5  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 1 | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 2  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 0  | 0  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 41 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.82 row id1=(6957, 1) (Pu2-8) vs row id2=296

Table 119: row id1=(6957, 1) (Pu2-8) vs row id2=296

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 37 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 36 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 38 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.83 row id1=(6958, 1) (Ra-0) vs row id2=69

Table 120: row id1=(6958, 1) (Ra-0) vs row id2=69

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 5  | 17 | 19 | 23 | 13 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 2 | 0 | 0  | 21 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 1  | 18 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 7  | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 121: detailed difference for row id1=(6958, 1) (Ra-0) vs row id2=69

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6958, 1)/Ra-0 | AtMSQTsnp 164 | A     | 69      | AtMSQTsnp 164 | C     |
| (6958, 1)/Ra-0 | AtMSQTsnp 321 | C     | 69      | AtMSQTsnp 321 | A     |

3.84 row id1=(6959, 1) (REN-1) vs row id2=47

Table 122: row id1=(6959, 1) (REN-1) vs row id2=47

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 2  | 2  | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 3  | 1  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 3 | 0 | 1  | 1  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 123: detailed difference for row id1=(6959, 1) (REN-1) vs row id2=47

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6959, 1)/REN-1 | AtMSQTsnp 267 | CT    | 47      | AtMSQTsnp 267 | C     |
| (6959, 1)/REN-1 | AtMSQTsnp 281 | CT    | 47      | AtMSQTsnp 281 | T     |
| (6959, 1)/REN-1 | AtMSQTsnp 388 | C     | 47      | AtMSQTsnp 388 | A     |
| (6959, 1)/REN-1 | AtMSQTsnp 392 | G     | 47      | AtMSQTsnp 392 | A     |

3.85 row id1=(6960, 1) (REN-11) vs row id2=48

Table 124: row id1=(6960, 1) (REN-11) vs row id2=48

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 1  | 1  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  |
| G  | 1 | 0 | 2  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 1  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Table 125: detailed difference for row id1=(6960, 1) (REN-11) vs row id2=48

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6960, 1)/REN-11 | AtMSQTsnp 266 | G     | 48      | AtMSQTsnp 266 | GT    |
| (6960, 1)/REN-11 | AtMSQTsnp 267 | CT    | 48      | AtMSQTsnp 267 | C     |
| (6960, 1)/REN-11 | AtMSQTsnp 285 | C     | 48      | AtMSQTsnp 285 | CT    |

### 3.86 row id1=(6961, 1) (Se-0) vs row id2=83

Table 126: row id1=(6961, 1) (Se-0) vs row id2=83

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 1  | 0  | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 3  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 42 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 3  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 127: detailed difference for row id1=(6961, 1) (Se-0) vs row id2=83

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6961, 1)/Se-0 | AtMSQTsnp 267 | CT    | 83      | AtMSQTsnp 267 | C     |

### 3.87 row id1=(6963, 1) (Sorbo) vs row id2=90

Table 128: row id1=(6963, 1) (Sorbo) vs row id2=90

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 1 | 2  | 0  | 1  | 1  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 6  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 2 | 0 | 1  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

### 3.88 row id1=(6964, 1) (Spr1-2) vs row id2=19

Table 129: row id1=(6964, 1) (Spr1-2) vs row id2=19

|    |   | - | NA | A  | C  | G  | T | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|---|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 1 | 1  | 0  | 2  | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 35 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 1  | 0  | 31 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 39 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |



|    |   |   |   |   |   |   |    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|----|---|---|---|---|---|---|
| T  | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

3.89 row id1=(6965, 1) (Spr1-6) vs row id2=20

Table 130: row id1=(6965, 1) (Spr1-6) vs row id2=20

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 3  | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 3  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 42 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 1 | 1  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.90 row id1=(6966, 1) (Sq-1) vs row id2=37

Table 131: row id1=(6966, 1) (Sq-1) vs row id2=37

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 2  | 5  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.91 row id1=(6967, 1) (Sq-8) vs row id2=38

Table 132: row id1=(6967, 1) (Sq-8) vs row id2=38

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 0  | 3  | 3  | 2  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 1  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 2 | 0 | 1  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.92 row id1=(6968, 1) (Tamm-2) vs row id2=41

Table 133: row id1=(6968, 1) (Tamm-2) vs row id2=41

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 12 | 8  | 16 | 8  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 2  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 19 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.93 row id1=(6969, 1) (Tamm-27) vs row id2=42

Table 134: row id1=(6969, 1) (Tamm-27) vs row id2=42

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 3  | 1  | 3  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 3  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 2  | 0  | 0  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.94 row id1=(6970, 1) (Ts-1) vs row id2=84

Table 135: row id1=(6970, 1) (Ts-1) vs row id2=84

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 2  | 0  | 1  | 3  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 5  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 136: detailed difference for row id1=(6970, 1) (Ts-1) vs row id2=84

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6970, 1)/Ts-1 | AtMSQTsnp 232 | AC    | 84      | AtMSQTsnp 232 | A     |

3.95 row id1=(6971, 1) (Ts-5) vs row id2=85

Table 137: row id1=(6971, 1) (Ts-5) vs row id2=85

|  |  |   |    |   |   |   |   |    |    |    |    |    |    |  |
|--|--|---|----|---|---|---|---|----|----|----|----|----|----|--|
|  |  |   |    |   |   |   |   |    |    |    |    |    |    |  |
|  |  | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |

|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
|    | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| -  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 0 | 0 | 0 | 0  | 1  | 2  | 1  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 0 | 40 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 3 | 0  | 25 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0 | 0 | 1 | 1  | 0  | 39 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 1 | 0  | 0  | 0  | 34 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 1  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 138: detailed difference for row id1=(6971, 1) (Ts-5) vs row id2=85

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6971, 1)/Ts-5 | AtMSQTsnp 267 | CT    | 85      | AtMSQTsnp 267 | C     |
| (6971, 1)/Ts-5 | AtMSQTsnp 370 | G     | 85      | AtMSQTsnp 370 | A     |

3.96 row id1=(6972, 1) (Tsu-1) vs row id2=78

Table 139: row id1=(6972, 1) (Tsu-1) vs row id2=78

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 3  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 38 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 41 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 140: detailed difference for row id1=(6972, 1) (Tsu-1) vs row id2=78

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6972, 1)/Tsu-1 | AtMSQTsnp 232 | AC    | 78      | AtMSQTsnp 232 | A     |
| (6972, 1)/Tsu-1 | AtMSQTsnp 334 | C     | 78      | AtMSQTsnp 334 | T     |

3.97 row id1=(6973, 1) (Ull2-3) vs row id2=24

Table 141: row id1=(6973, 1) (Ull2-3) vs row id2=24

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 2  | 1  | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 4  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.98 row id1=(6974, 1) (Ull2-5) vs row id2=23

Table 142: row id1=(6974, 1) (Ull2-5) vs row id2=23

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 0  | 3  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 2 | 0 | 1  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 3  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 5  | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.99 row id1=(6975, 1) (Uod-1) vs row id2=49

Table 143: row id1=(6975, 1) (Uod-1) vs row id2=49

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 41 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 2 | 1 | 1  | 0  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.100 row id1=(6976, 1) (Uod-7) vs row id2=50

Table 144: row id1=(6976, 1) (Uod-7) vs row id2=50

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 3  | 13 | 5  | 9  | 13 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 145: detailed difference for row id1=(6976, 1) (Uod-7) vs row id2=50

|                 |               |       |         |               |       |
|-----------------|---------------|-------|---------|---------------|-------|
| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
| (6976, 1)/Uod-7 | AtMSQTsnp 267 | CT    | 50      | AtMSQTsnp 267 | C     |

3.101 row id1=(6977, 1) (Van-0) vs row id2=64

Table 146: row id1=(6977, 1) (Van-0) vs row id2=64

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 2  | 5  | 9  | 9  | 6  | 0  | 2  | 0  | 1  | 3  | 0  |
| A  | 0 | 0 | 2  | 23 | 0  | 2  | 0  | 2  | 5  | 2  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 12 | 0  | 0  | 0  | 0  | 0  | 2  | 3  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 22 | 0  | 0  | 3  | 0  | 0  | 0  | 1  |
| T  | 0 | 0 | 2  | 0  | 1  | 0  | 21 | 0  | 0  | 1  | 0  | 3  | 2  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 147: detailed difference for row id1=(6977, 1) (Van-0) vs row id2=64

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 101 | A     | 64      | AtMSQTsnp 101 | AG    |
| (6977, 1)/Van-0 | AtMSQTsnp 108 | G     | 64      | AtMSQTsnp 108 | AG    |
| (6977, 1)/Van-0 | AtMSQTsnp 11  | T     | 64      | AtMSQTsnp 11  | CT    |
| (6977, 1)/Van-0 | AtMSQTsnp 12  | A     | 64      | AtMSQTsnp 12  | G     |
| (6977, 1)/Van-0 | AtMSQTsnp 188 | C     | 64      | AtMSQTsnp 188 | CT    |
| (6977, 1)/Van-0 | AtMSQTsnp 194 | T     | 64      | AtMSQTsnp 194 | AT    |
| (6977, 1)/Van-0 | AtMSQTsnp 197 | A     | 64      | AtMSQTsnp 197 | AG    |
| (6977, 1)/Van-0 | AtMSQTsnp 203 | A     | 64      | AtMSQTsnp 203 | AT    |
| (6977, 1)/Van-0 | AtMSQTsnp 214 | A     | 64      | AtMSQTsnp 214 | AG    |
| (6977, 1)/Van-0 | AtMSQTsnp 220 | A     | 64      | AtMSQTsnp 220 | G     |
| (6977, 1)/Van-0 | AtMSQTsnp 242 | C     | 64      | AtMSQTsnp 242 | CT    |
| (6977, 1)/Van-0 | AtMSQTsnp 260 | A     | 64      | AtMSQTsnp 260 | AC    |
| (6977, 1)/Van-0 | AtMSQTsnp 266 | T     | 64      | AtMSQTsnp 266 | GT    |
| (6977, 1)/Van-0 | AtMSQTsnp 281 | T     | 64      | AtMSQTsnp 281 | C     |
| (6977, 1)/Van-0 | AtMSQTsnp 285 | T     | 64      | AtMSQTsnp 285 | CT    |
| (6977, 1)/Van-0 | AtMSQTsnp 29  | A     | 64      | AtMSQTsnp 29  | AT    |
| (6977, 1)/Van-0 | AtMSQTsnp 323 | A     | 64      | AtMSQTsnp 323 | AG    |
| (6977, 1)/Van-0 | AtMSQTsnp 359 | G     | 64      | AtMSQTsnp 359 | GT    |
| (6977, 1)/Van-0 | AtMSQTsnp 378 | C     | 64      | AtMSQTsnp 378 | CG    |
| (6977, 1)/Van-0 | AtMSQTsnp 390 | T     | 64      | AtMSQTsnp 390 | CT    |
| (6977, 1)/Van-0 | AtMSQTsnp 395 | A     | 64      | AtMSQTsnp 395 | AG    |
| (6977, 1)/Van-0 | AtMSQTsnp 397 | T     | 64      | AtMSQTsnp 397 | GT    |
| (6977, 1)/Van-0 | AtMSQTsnp 410 | G     | 64      | AtMSQTsnp 410 | AG    |
| (6977, 1)/Van-0 | AtMSQTsnp 63  | A     | 64      | AtMSQTsnp 63  | AC    |
| (6977, 1)/Van-0 | AtMSQTsnp 8   | G     | 64      | AtMSQTsnp 8   | AG    |
| (6977, 1)/Van-0 | AtMSQTsnp 90  | C     | 64      | AtMSQTsnp 90  | CT    |
| (6977, 1)/Van-0 | AtMSQTsnp 97  | C     | 64      | AtMSQTsnp 97  | CG    |

3.102 row id1=(6978, 1) (Wa-1) vs row id2=81

Table 148: row id1=(6978, 1) (Wa-1) vs row id2=81

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 3  | 5  | 7  | 11 | 12 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 1  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 3  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.103 row id1=(6979, 1) (Wei-0) vs row id2=59

Table 149: row id1=(6979, 1) (Wei-0) vs row id2=59

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 0  | 0  | 2  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 2  | 38 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 2  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 2  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 3  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 150: detailed difference for row id1=(6979, 1) (Wei-0) vs row id2=59

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6979, 1)/Wei-0 | AtMSQTsnp 232 | AC    | 59      | AtMSQTsnp 232 | A     |

3.104 row id1=(6980, 1) (Ws-0) vs row id2=60

Table 151: row id1=(6980, 1) (Ws-0) vs row id2=60

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 3  | 1  | 3  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 1  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 4  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 0  | 0  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 152: detailed difference for row id1=(6980, 1) (Ws-0) vs row id2=60

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6980, 1)/Ws-0 | AtMSQTsnp 267 | CT    | 60      | AtMSQTsnp 267 | C     |

3.105 row id1=(6981, 1) (Ws-2) vs row id2=96

Table 153: row id1=(6981, 1) (Ws-2) vs row id2=96

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 2  | 1  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 6 | 0 | 4  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 2  | 1  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 2 | 0 | 4  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 154: detailed difference for row id1=(6981, 1) (Ws-2) vs row id2=96

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6981, 1)/Ws-2 | AtMSQTsnp 370 | G     | 96      | AtMSQTsnp 370 | A     |

3.106 row id1=(6982, 1) (Wt-5) vs row id2=74

Table 155: row id1=(6982, 1) (Wt-5) vs row id2=74

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 0  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 2 | 0 | 2  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 4  | 0  | 34 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 3  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 4  | 0  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 156: detailed difference for row id1=(6982, 1) (Wt-5) vs row id2=74

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6982, 1)/Wt-5 | AtMSQTsnp 334 | C     | 74      | AtMSQTsnp 334 | T     |

3.107 row id1=(6983, 1) (Yo-0) vs row id2=61

Table 157: row id1=(6983, 1) (Yo-0) vs row id2=61

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 42 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 3  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 42 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.108 row id1=(6984, 1) (Zdr-1) vs row id2=25

Table 158: row id1=(6984, 1) (Zdr-1) vs row id2=25

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 0  | 33 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Table 159: detailed difference for row id1=(6984, 1) (Zdr-1) vs row id2=25

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6984, 1)/Zdr-1 | AtMSQTsnp 232 | AC    | 25      | AtMSQTsnp 232 | A     |
| (6984, 1)/Zdr-1 | AtMSQTsnp 260 | A     | 25      | AtMSQTsnp 260 | C     |

3.109    row id1=(6985, 1) (Zdr-6) vs row id2=26

Table 160: row id1=(6985, 1) (Zdr-6) vs row id2=26

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 1  | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 2  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 2  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 0  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 161: detailed difference for row id1=(6985, 1) (Zdr-6) vs row id2=26

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6985, 1)/Zdr-6 | AtMSQTsnp 267 | CT    | 26      | AtMSQTsnp 267 | C     |

3.110    row id1=(6986, 1) () vs row id2=386

Table 162: row id1=(6986, 1) () vs row id2=386

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.111    row id1=(6987, 1) () vs row id2=387

Table 163: row id1=(6987, 1) () vs row id2=387

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |



|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.112    row id1=(7000, 1) () vs row id2=385

Table 164: row id1=(7000, 1) () vs row id2=385

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 44 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 42 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.113    row id1=(7014, 1) () vs row id2=388

Table 165: row id1=(7014, 1) () vs row id2=388

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 45 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.114    row id1=(7016, 1) () vs row id2=390

Table 166: row id1=(7016, 1) () vs row id2=390

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 43 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 37 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.115    row id1=(7025, 1) () vs row id2=389

Table 167: row id1=(7025, 1) () vs row id2=389

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.116 row id1=(7061, 1) () vs row id2=392

Table 168: row id1=(7061, 1) () vs row id2=392

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 42 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.117 row id1=(7062, 1) () vs row id2=391

Table 169: row id1=(7062, 1) () vs row id2=391

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 7  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.118 row id1=(7064, 1) () vs row id2=394

Table 170: row id1=(7064, 1) () vs row id2=394

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 37 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.119    row id1=(7072, 1) () vs row id2=393

Table 171: row id1=(7072, 1) () vs row id2=393

|    |     | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|-----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 148 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 1   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.120    row id1=(7094, 1) () vs row id2=396

Table 172: row id1=(7094, 1) () vs row id2=396

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 42 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.121    row id1=(7096, 1) () vs row id2=399

Table 173: row id1=(7096, 1) () vs row id2=399

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 43 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 42 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.122    row id1=(7103, 1) () vs row id2=400

Table 174: row id1=(7103, 1) () vs row id2=400

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.123    row id1=(7109, 1) () vs row id2=401

Table 175: row id1=(7109, 1) () vs row id2=401

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.124    row id1=(7123, 1) () vs row id2=403

Table 176: row id1=(7123, 1) () vs row id2=403

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 42 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.125    row id1=(7125, 1) () vs row id2=404

Table 177: row id1=(7125, 1) () vs row id2=404

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.126    row id1=(7127, 1) () vs row id2=405

Table 178: row id1=(7127, 1) () vs row id2=405

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.127    row id1=(7130, 1) () vs row id2=406

Table 179: row id1=(7130, 1) () vs row id2=406

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 48 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.128    row id1=(7133, 1) () vs row id2=407

Table 180: row id1=(7133, 1) () vs row id2=407

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 43 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.129    row id1=(7147, 1) () vs row id2=408

Table 181: row id1=(7147, 1) () vs row id2=408

|  |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|--|---|---|----|---|---|---|---|----|----|----|----|----|----|
|  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 1  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 1  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.130 row id1=(7160, 1) () vs row id2=409

Table 182: row id1=(7160, 1) () vs row id2=409

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 44 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 23 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.131 row id1=(7163, 1) () vs row id2=410

Table 183: row id1=(7163, 1) () vs row id2=410

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.132 row id1=(7164, 1) () vs row id2=411

Table 184: row id1=(7164, 1) () vs row id2=411

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.133 row id1=(7172, 1) () vs row id2=412

Table 185: row id1=(7172, 1) () vs row id2=412

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 45 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.134 row id1=(7181, 1) () vs row id2=413

Table 186: row id1=(7181, 1) () vs row id2=413

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 42 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.135 row id1=(7192, 1) () vs row id2=417

Table 187: row id1=(7192, 1) () vs row id2=417

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.136 row id1=(7202, 1) () vs row id2=415

Table 188: row id1=(7202, 1) () vs row id2=415

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C  | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**3.137**    row id1=(7231, 1) () vs row id2=418

Table 189: row id1=(7231, 1) () vs row id2=418

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 42 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 37 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

**3.138**    row id1=(7238, 1) () vs row id2=419

Table 190: row id1=(7238, 1) () vs row id2=419

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

**3.139**    row id1=(7245, 1) () vs row id2=420

Table 191: row id1=(7245, 1) () vs row id2=420

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 13 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |



3.140 row id1=(7255, 1) () vs row id2=421

Table 192: row id1=(7255, 1) () vs row id2=421

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.141 row id1=(7262, 1) () vs row id2=424

Table 193: row id1=(7262, 1) () vs row id2=424

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 43 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.142 row id1=(7265, 1) () vs row id2=422

Table 194: row id1=(7265, 1) () vs row id2=422

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 47 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.143 row id1=(7275, 1) () vs row id2=423

Table 195: row id1=(7275, 1) () vs row id2=423

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 42 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.144    row id1=(7276, 1) () vs row id2=425

Table 196: row id1=(7276, 1) () vs row id2=425

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 19 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 37 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.145    row id1=(7282, 1) () vs row id2=426

Table 197: row id1=(7282, 1) () vs row id2=426

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 42 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.146    row id1=(7306, 1) () vs row id2=427

Table 198: row id1=(7306, 1) () vs row id2=427

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 5  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 48 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.147    row id1=(7328, 1) () vs row id2=429

Table 199: row id1=(7328, 1) () vs row id2=429

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 51 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 21 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 17 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 21 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.148 row id1=(7332, 1) () vs row id2=395

Table 200: row id1=(7332, 1) () vs row id2=395

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 44 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.149 row id1=(7346, 1) () vs row id2=430

Table 201: row id1=(7346, 1) () vs row id2=430

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.150 row id1=(7352, 1) () vs row id2=431

Table 202: row id1=(7352, 1) () vs row id2=431

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 49 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 18 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.151    row id1=(7356, 1) () vs row id2=432

Table 203: row id1=(7356, 1) () vs row id2=432

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.152    row id1=(7376, 1) () vs row id2=433

Table 204: row id1=(7376, 1) () vs row id2=433

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 19 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 23 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 37 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.153    row id1=(7381, 1) () vs row id2=434

Table 205: row id1=(7381, 1) () vs row id2=434

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 21 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.154    row id1=(7406, 1) () vs row id2=436

Table 206: row id1=(7406, 1) () vs row id2=436

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.155    row id1=(7418, 1) () vs row id2=437

Table 207: row id1=(7418, 1) () vs row id2=437

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 11 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.156    row id1=(7419, 1) () vs row id2=398

Table 208: row id1=(7419, 1) () vs row id2=398

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 41 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.157    row id1=(7424, 1) () vs row id2=414

Table 209: row id1=(7424, 1) () vs row id2=414

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 9  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.158    row id1=(7438, 1) (N13) vs row id2=58

Table 210: row id1=(7438, 1) (N13) vs row id2=58

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2 | 0 | 2  | 9  | 8  | 9  | 14 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 2 | 0 | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 1  | 0  | 19 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 211: detailed difference for row id1=(7438, 1) (N13) vs row id2=58

| row id1       | col id1       | call1 | row id2 | col id2       | call2 |
|---------------|---------------|-------|---------|---------------|-------|
| (7438, 1)/N13 | AtMSQTsnp 169 | GT    | 58      | AtMSQTsnp 169 | G     |

3.159    row id1=(7453, 1) (M3385S) vs row id2=98

Table 212: row id1=(7453, 1) (M3385S) vs row id2=98

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 41 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 33 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 36 | 0 | 0  | 0 | 0 | 3 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 27 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.160    row id1=(7477, 1) () vs row id2=435

Table 213: row id1=(7477, 1) () vs row id2=435

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 43 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.161 row id1=(7516, 1) (V-1) vs row id2=17

Table 214: row id1=(7516, 1) (V-1) vs row id2=17

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 1  | 3  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 215: detailed difference for row id1=(7516, 1) (V-1) vs row id2=17

| row id1       | col id1       | call1 | row id2 | col id2       | call2 |
|---------------|---------------|-------|---------|---------------|-------|
| (7516, 1)/V-1 | AtMSQTsnp 138 | CT    | 17      | AtMSQTsnp 138 | C     |

3.162 row id1=(7517, 1) (V-6) vs row id2=18

Table 216: row id1=(7517, 1) (V-6) vs row id2=18

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 0  | 3  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 45 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 1  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.163 row id1=(7518, 1) () vs row id2=21

Table 217: row id1=(7518, 1) () vs row id2=21

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 2  | 1  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 42 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.164 row id1=(7519, 1) () vs row id2=22

Table 218: row id1=(7519, 1) () vs row id2=22

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 1  | 3  | 2  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 1  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 2  | 1  | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 219: detailed difference for row id1=(7519, 1) () vs row id2=22

| row id1    | col id1       | call1 | row id2 | col id2       | call2 |
|------------|---------------|-------|---------|---------------|-------|
| (7519, 1)/ | AtMSQTsnp 267 | CT    | 22      | AtMSQTsnp 267 | C     |
| (7519, 1)/ | AtMSQTsnp 373 | G     | 22      | AtMSQTsnp 373 | A     |

3.165 row id1=(7520, 1) (Lp2-2) vs row id2=31

Table 220: row id1=(7520, 1) (Lp2-2) vs row id2=31

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 2  | 2  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 1  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.166 row id1=(7521, 1) (Lp2-6) vs row id2=32

Table 221: row id1=(7521, 1) (Lp2-6) vs row id2=32

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 0  | 2  | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 1  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.167 row id1=(7522, 1) (Mr-0) vs row id2=77

Table 222: row id1=(7522, 1) (Mr-0) vs row id2=77

|  |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|--|---|---|----|---|---|---|---|----|----|----|----|----|----|
|  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |



|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
| -  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 1 | 0 | 0 | 0  | 1  | 2  | 1  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 2 | 32 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 3 | 0  | 34 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0 | 0 | 2 | 0  | 0  | 47 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 3 | 0  | 0  | 0  | 21 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

3.168    row id1=(7523, 1) (Pna-17) vs row id2=7

Table 223: row id1=(7523, 1) (Pna-17) vs row id2=7

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 1  | 0  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 1  | 43 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 2 | 0 | 2  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 2 | 0 | 2  | 0  | 0  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 3 | 0 | 0  | 0  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 224: detailed difference for row id1=(7523, 1) (Pna-17) vs row id2=7

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (7523, 1)/Pna-17 | AtMSQTsnp 267 | CT    | 7       | AtMSQTsnp 267 | C     |

3.169    row id1=(7524, 1) (Rmx-A02) vs row id2=5

Table 225: row id1=(7524, 1) (Rmx-A02) vs row id2=5

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 3  | 1  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 5  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 2 | 0 | 0  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 3  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 2 | 0 | 2  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 226: detailed difference for row id1=(7524, 1) (Rmx-A02) vs row id2=5

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (7524, 1)/Rmx-A02 | AtMSQTsnp 232 | AC    | 5       | AtMSQTsnp 232 | A     |

3.170    row id1=(7525, 1) (Rmx-A180) vs row id2=6

Table 227: row id1=(7525, 1) (Rmx-A180) vs row id2=6

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 0  | 2  | 1  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 2  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 3 | 0 | 2  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 3 | 0 | 1  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.171 row id1=(7526, 1) (Pna-10) vs row id2=8

Table 228: row id1=(7526, 1) (Pna-10) vs row id2=8

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 0  | 2  | 1  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 3  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 1 | 0 | 3  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 3  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 4  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 229: detailed difference for row id1=(7526, 1) (Pna-10) vs row id2=8

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (7526, 1)/Pna-10 | AtMSQTsnp 232 | AC    | 8       | AtMSQTsnp 232 | A     |
| (7526, 1)/Pna-10 | AtMSQTsnp 267 | CT    | 8       | AtMSQTsnp 267 | C     |

3.172 row id1=(8213, 1) (Pro-0) vs row id2=86

Table 230: row id1=(8213, 1) (Pro-0) vs row id2=86

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 4  | 13 | 6  | 9  | 8  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 2  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 2  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 0  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.173 row id1=(8214, 1) (Gy-0) vs row id2=68

Table 231: row id1=(8214, 1) (Gy-0) vs row id2=68

|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 0  | 3  | 2  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 45 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 232: detailed difference for row id1=(8214, 1) (Gy-0) vs row id2=68

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (8214, 1)/Gy-0 | AtMSQTsnp 164 | A     | 68      | AtMSQTsnp 164 | C     |

3.174 row id1=(8215, 1) (Fei-0) vs row id2=82

Table 233: row id1=(8215, 1) (Fei-0) vs row id2=82

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 0  | 2  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 5  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 6  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 34 | 0  | 0  | 1  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 234: detailed difference for row id1=(8215, 1) (Fei-0) vs row id2=82

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (8215, 1)/Fei-0 | AtMSQTsnp 223 | G     | 82      | AtMSQTsnp 223 | AG    |
| (8215, 1)/Fei-0 | AtMSQTsnp 232 | AC    | 82      | AtMSQTsnp 232 | A     |

3.175 row id1=(8222, 1) (Lis-2) vs row id2=366

Table 235: row id1=(8222, 1) (Lis-2) vs row id2=366

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 7  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 31 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 39 | 0 | 2  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.176 row id1=(8222, 2) (Lis-2) vs row id2=366

Table 236: row id1=(8222, 2) (Lis-2) vs row id2=366

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 25 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 2  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.177 row id1=(8231, 1) (Br) vs row id2=354

Table 237: row id1=(8231, 1) (Br) vs row id2=354

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 34 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 19 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.178 row id1=(8233, 1) (Dem-4) vs row id2=297

Table 238: row id1=(8233, 1) (Dem-4) vs row id2=297

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 35 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 22 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 31 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.179 row id1=(8234, 1) (Gul1-2) vs row id2=356

Table 239: row id1=(8234, 1) (Gul1-2) vs row id2=356

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 36 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 29 | 0 | 0  | 0 | 0 | 1 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 240: detailed difference for row id1=(8234, 1) (Gul1-2) vs row id2=356

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (8234, 1)/Gul1-2 | AtMSQTsnp 274 | T     | 356     | AtMSQTsnp 274 | G     |

3.180 row id1=(8235, 1) (Hod) vs row id2=379

Table 241: row id1=(8235, 1) (Hod) vs row id2=379

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 35 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 26 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 28 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.181 row id1=(8236, 1) (HSm) vs row id2=380

Table 242: row id1=(8236, 1) (HSm) vs row id2=380

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 38 | 0 | 1  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 27 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.182 row id1=(8237, 1) (Kinge-1) vs row id2=373

Table 243: row id1=(8237, 1) (Kinge-1) vs row id2=373

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 33 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 25 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 28 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.183 row id1=(8238, 1) (Kent) vs row id2=289

Table 244: row id1=(8238, 1) (Kent) vs row id2=289

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 39 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.184 row id1=(8239, 1) (K) vs row id2=293

Table 245: row id1=(8239, 1) (K) vs row id2=293

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 29 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.185 row id1=(8240, 1) (Kulturen-1) vs row id2=372

Table 246: row id1=(8240, 1) (Kulturen-1) vs row id2=372

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 30 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.186 row id1=(8241, 1) (Liarum) vs row id2=371

Table 247: row id1=(8241, 1) (Liarum) vs row id2=371

|  |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|--|---|---|----|---|---|---|---|----|----|----|----|----|----|
|  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 31 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 31 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 32 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.187    row id1=(8242, 1) (Lill) vs row id2=353

Table 248: row id1=(8242, 1) (Lill) vs row id2=353

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 34 | 0 | 1  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.188    row id1=(8243, 1) (PHW-2) vs row id2=313

Table 249: row id1=(8243, 1) (PHW-2) vs row id2=313

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 29 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 35 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 27 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.189    row id1=(8244, 1) (PHW-34) vs row id2=304

Table 250: row id1=(8244, 1) (PHW-34) vs row id2=304

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 36 | 0 | 0  | 0 | 0 | 1 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 24 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.190    row id1=(8245, 1) (Seattle-0) vs row id2=314

Table 251: detailed difference for row id1=(8244, 1) (PHW-34) vs row id2=304

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (8244, 1)/PHW-34 | AtMSQTsnp 274 | G     | 304     | AtMSQTsnp 274 | T     |

Table 252: row id1=(8245, 1) (Seattle-0) vs row id2=314

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 30 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 37 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 26 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.191    row id1=(8246, 1) (NC-6) vs row id2=294

Table 253: row id1=(8246, 1) (NC-6) vs row id2=294

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 44 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 34 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 11 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 23 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 254: detailed difference for row id1=(8246, 1) (NC-6) vs row id2=294

|                |               |       |         |               |       |
|----------------|---------------|-------|---------|---------------|-------|
| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
| (8246, 1)/NC-6 | AtMSQTsnp 274 | G     | 294     | AtMSQTsnp 274 | T     |
| (8246, 1)/NC-6 | AtMSQTsnp 278 | A     | 294     | AtMSQTsnp 278 | G     |

3.192    row id1=(8247, 1) (San-2) vs row id2=349

Table 255: row id1=(8247, 1) (San-2) vs row id2=349

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 40 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 21 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 25 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |



|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.193    row id1=(8248, 1) (Shahdara) vs row id2=89

Table 256: row id1=(8248, 1) (Shahdara) vs row id2=89

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |   |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|---|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 2 | 1 | 8  | 18 | 15 | 14 | 10 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 0 | 0 | 2  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 0 | 0 | 0  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 0 | 0 | 0  | 0  | 0  | 18 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 19 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.194    row id1=(8249, 1) (Vimmerby) vs row id2=295

Table 257: row id1=(8249, 1) (Vimmerby) vs row id2=295

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 32 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 31 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 30 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.195    row id1=(8251, 1) (Ag-0) vs row id2=67

Table 258: row id1=(8251, 1) (Ag-0) vs row id2=67

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |   |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|---|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 1 | 0 | 4  | 6  | 6  | 12 | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 0 | 0 | 2  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 0 | 0 | 3  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 0 | 0 | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.196    row id1=(8252, 1) (Alc-0) vs row id2=315

Table 259: row id1=(8252, 1) (Alc-0) vs row id2=315

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 18 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 33 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 32 | 0 | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.197    row id1=(8253, 1) (An-1) vs row id2=63

Table 260: row id1=(8253, 1) (An-1) vs row id2=63

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 11 | 10 | 6  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.198    row id1=(8254, 1) (Ang-0) vs row id2=303

Table 261: row id1=(8254, 1) (Ang-0) vs row id2=303

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 35 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 30 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.199    row id1=(8256, 1) (B2) vs row id2=357

Table 262: row id1=(8256, 1) (B2) vs row id2=357

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 25 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 35 | 0 | 1  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.200    row id1=(8257, 1) (B3) vs row id2=358

Table 263: row id1=(8257, 1) (B3) vs row id2=358

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.201    row id1=(8258, 1) (B1) vs row id2=359

Table 264: row id1=(8258, 1) (B1) vs row id2=359

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 26 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.202    row id1=(8259, 1) (B1) vs row id2=360

Table 265: row id1=(8259, 1) (B1) vs row id2=360

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 25 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 1  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.203    row id1=(8260, 1) (Bay-0) vs row id2=70

Table 266: row id1=(8260, 1) (Bay-0) vs row id2=70

|  |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|--|---|---|----|---|---|---|---|----|----|----|----|----|----|
|  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |    |    |    |    |   |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|---|
| -  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 0 | 0 | 1 | 11 | 8  | 10 | 2  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 2 | 35 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 0 | 0  | 26 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 1 | 0 | 0 | 0  | 0  | 24 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 1 | 0  | 0  | 0  | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.204    row id1=(8261, 1) (Bg-2) vs row id2=299

Table 267: row id1=(8261, 1) (Bg-2) vs row id2=299

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 38 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 23 | 0 | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.205    row id1=(8262, 1) (Bil-5) vs row id2=15

Table 268: row id1=(8262, 1) (Bil-5) vs row id2=15

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 7  | 5  | 12 | 4  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 3  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 2  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.206    row id1=(8263, 1) (Bil-7) vs row id2=16

Table 269: row id1=(8263, 1) (Bil-7) vs row id2=16

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 5  | 5  | 11 | 4  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 1  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 270: detailed difference for row id1=(8263, 1) (Bil-7) vs row id2=16

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (8263, 1)/Bil-7 | AtMSQTsnp 370 | G     | 16      | AtMSQTsnp 370 | A     |

3.207 row id1=(8264, 1) (Bla-1) vs row id2=316

Table 271: row id1=(8264, 1) (Bla-1) vs row id2=316

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 31 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 24 | 0 | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.208 row id1=(8265, 1) (Blh-1) vs row id2=317

Table 272: row id1=(8265, 1) (Blh-1) vs row id2=317

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 34 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 26 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 29 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.209 row id1=(8268, 1) (Bor-4) vs row id2=28

Table 273: row id1=(8268, 1) (Bor-4) vs row id2=28

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 0  | 8  | 5  | 10 | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.210 row id1=(8269, 1) (Br-0) vs row id2=65

Table 274: row id1=(8269, 1) (Br-0) vs row id2=65

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 2  | 11 | 14 | 11 | 3  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 1  | 0  | 0  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.211 row id1=(8270, 1) (Bs-1) vs row id2=318

Table 275: row id1=(8270, 1) (Bs-1) vs row id2=318

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 40 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 28 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 24 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.212 row id1=(8271, 1) (Bu-0) vs row id2=305

Table 276: row id1=(8271, 1) (Bu-0) vs row id2=305

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 33 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 29 | 0 | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.213 row id1=(8272, 1) (Bur-0) vs row id2=93

Table 277: row id1=(8272, 1) (Bur-0) vs row id2=93

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 2 | 0 | 1  | 7  | 7  | 8  | 8  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 1 | 0 | 1  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 3  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.214    row id1=(8273, 1) (C24) vs row id2=57

Table 278: row id1=(8273, 1) (C24) vs row id2=57

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |   |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|---|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 2 | 0 | 1  | 7  | 8  | 10 | 4  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 0 | 0 | 1  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 0 | 0 | 1  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 0 | 0 | 1  | 0  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 1 | 0 | 1  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

Table 279: detailed difference for row id1=(8273, 1) (C24) vs row id2=57

| row id1       | col id1       | call1 | row id2 | col id2       | call2 |
|---------------|---------------|-------|---------|---------------|-------|
| (8273, 1)/C24 | AtMSQTsnp 138 | CT    | 57      | AtMSQTsnp 138 | C     |

3.215    row id1=(8274, 1) (Can-0) vs row id2=319

Table 280: row id1=(8274, 1) (Can-0) vs row id2=319

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 34 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 27 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.216    row id1=(8275, 1) (Cen-0) vs row id2=320

Table 281: row id1=(8275, 1) (Cen-0) vs row id2=320

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 28 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 33 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 24 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.217 row id1=(8276, 1) (CIBC-17) vs row id2=40

Table 282: row id1=(8276, 1) (CIBC-17) vs row id2=40

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 9  | 6  | 7  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 33 | 1  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 2  | 0  | 23 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 2  | 1  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 0  | 1  | 1  | 1  | 26 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 283: detailed difference for row id1=(8276, 1) (CIBC-17) vs row id2=40

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (8276, 1)/CIBC-17 | AtMSQTsnp 114 | A     | 40      | AtMSQTsnp 114 | G     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 159 | T     | 40      | AtMSQTsnp 159 | C     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 223 | A     | 40      | AtMSQTsnp 223 | G     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 244 | A     | 40      | AtMSQTsnp 244 | G     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 307 | T     | 40      | AtMSQTsnp 307 | A     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 321 | A     | 40      | AtMSQTsnp 321 | C     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 327 | T     | 40      | AtMSQTsnp 327 | G     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 334 | C     | 40      | AtMSQTsnp 334 | T     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 415 | G     | 40      | AtMSQTsnp 415 | A     |

3.218 row id1=(8277, 1) (CIBC-5) vs row id2=39

Table 284: row id1=(8277, 1) (CIBC-5) vs row id2=39

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 9  | 6  | 9  | 7  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 25 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 1  | 25 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 2  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 2  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 285: detailed difference for row id1=(8277, 1) (CIBC-5) vs row id2=39

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (8277, 1)/CIBC-5 | AtMSQTsnp 138 | CT    | 39      | AtMSQTsnp 138 | C     |
| (8277, 1)/CIBC-5 | AtMSQTsnp 223 | G     | 39      | AtMSQTsnp 223 | A     |
| (8277, 1)/CIBC-5 | AtMSQTsnp 244 | G     | 39      | AtMSQTsnp 244 | A     |
| (8277, 1)/CIBC-5 | AtMSQTsnp 304 | T     | 39      | AtMSQTsnp 304 | C     |
| (8277, 1)/CIBC-5 | AtMSQTsnp 306 | C     | 39      | AtMSQTsnp 306 | G     |
| (8277, 1)/CIBC-5 | AtMSQTsnp 307 | A     | 39      | AtMSQTsnp 307 | T     |
| (8277, 1)/CIBC-5 | AtMSQTsnp 321 | C     | 39      | AtMSQTsnp 321 | A     |
| (8277, 1)/CIBC-5 | AtMSQTsnp 334 | T     | 39      | AtMSQTsnp 334 | C     |



3.219 row id1=(8278, 1) () vs row id2=321

Table 286: row id1=(8278, 1) () vs row id2=321

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 60 | 0 | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 21 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 21 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 15 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.220 row id1=(8279, 1) (Col-0) vs row id2=62

Table 287: row id1=(8279, 1) (Col-0) vs row id2=62

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 11 | 6  | 9  | 7  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.221 row id1=(8280, 1) (Ct-1) vs row id2=76

Table 288: row id1=(8280, 1) (Ct-1) vs row id2=76

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 9  | 7  | 7  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 4  | 0  | 25 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 289: detailed difference for row id1=(8280, 1) (Ct-1) vs row id2=76

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (8280, 1)/Ct-1 | AtMSQTsnp 292 | C     | 76      | AtMSQTsnp 292 | T     |

3.222 row id1=(8281, 1) (Cvi-0) vs row id2=51

Table 290: row id1=(8281, 1) (Cvi-0) vs row id2=51

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 11 | 7  | 7  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 1 | 1  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 3  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.223    row id1=(8283, 1) (Dra3-1) vs row id2=361

Table 291: row id1=(8283, 1) (Dra3-1) vs row id2=361

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 26 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 30 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 36 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.224    row id1=(8284, 1) (DraII-1) vs row id2=381

Table 292: row id1=(8284, 1) (DraII-1) vs row id2=381

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 30 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 1  | 0  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 293: detailed difference for row id1=(8284, 1) (DraII-1) vs row id2=381

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (8284, 1)/DraII-1 | AtMSQTsnp 274 | G     | 381     | AtMSQTsnp 274 | T     |
| (8284, 1)/DraII-1 | AtMSQTsnp 278 | A     | 381     | AtMSQTsnp 278 | AG    |
| (8284, 1)/DraII-1 | AtMSQTsnp 279 | T     | 381     | AtMSQTsnp 279 | CT    |

3.225    row id1=(8285, 1) (DraIII-1) vs row id2=382

Table 294: row id1=(8285, 1) (DraIII-1) vs row id2=382

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 31 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.226    row id1=(8287, 1) (Eden-2) vs row id2=10

Table 295: row id1=(8287, 1) (Eden-2) vs row id2=10

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 1 | 4  | 10 | 8  | 8  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 19 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 4  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.227    row id1=(8288, 1) (Edi-0) vs row id2=94

Table 296: row id1=(8288, 1) (Edi-0) vs row id2=94

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 3  | 10 | 4  | 10 | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 3  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.228    row id1=(8289, 1) (Ei-2) vs row id2=53

Table 297: row id1=(8289, 1) (Ei-2) vs row id2=53

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 7  | 6  | 8  | 7  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 4  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.229    row id1=(8290, 1) (En-1) vs row id2=301

Table 298: row id1=(8290, 1) (En-1) vs row id2=301

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 35 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 23 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.230    row id1=(8291, 1) (Est-1) vs row id2=66

Table 299: row id1=(8291, 1) (Est-1) vs row id2=66

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 3  | 9  | 4  | 7  | 8  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.231    row id1=(8292, 1) (F2) vs row id2=13

Table 300: row id1=(8292, 1) (F2) vs row id2=13

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 2  | 7  | 6  | 8  | 7  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 3  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.232    row id1=(8293, 1) (F4) vs row id2=14

Table 301: row id1=(8293, 1) (F4) vs row id2=14

|  |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|--|---|---|----|---|---|---|---|----|----|----|----|----|----|
|  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
| -  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 0 | 0 | 1 | 9  | 4  | 7  | 5  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 1 | 35 | 0  | 0  | 1  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 2 | 0  | 25 | 0  | 0  | 0 | 0 | 0 | 1 | 0 | 0 |
| G  | 0 | 0 | 1 | 0  | 0  | 29 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 0 | 0  | 0  | 0  | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 1 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 302: detailed difference for row id1=(8293, 1) (F4) vs row id2=14

| row id1      | col id1       | call1 | row id2 | col id2       | call2 |
|--------------|---------------|-------|---------|---------------|-------|
| (8293, 1)/F4 | AtMSQTsnp 307 | A     | 14      | AtMSQTsnp 307 | T     |
| (8293, 1)/F4 | AtMSQTsnp 97  | C     | 14      | AtMSQTsnp 97  | CG    |

3.233 row id1=(8294, 1) (Fei-0) vs row id2=82

Table 303: row id1=(8294, 1) (Fei-0) vs row id2=82

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 3  | 11 | 8  | 8  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 5  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 4  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 27 | 0  | 0  | 1  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 304: detailed difference for row id1=(8294, 1) (Fei-0) vs row id2=82

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (8294, 1)/Fei-0 | AtMSQTsnp 223 | G     | 82      | AtMSQTsnp 223 | AG    |

3.234 row id1=(8295, 1) (Ga-0) vs row id2=71

Table 305: row id1=(8295, 1) (Ga-0) vs row id2=71

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 3  | 8  | 6  | 6  | 7  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 3  | 0  | 19 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 1 | 2  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.235 row id1=(8296, 1) (Gd-1) vs row id2=306

Table 306: row id1=(8296, 1) (Gd-1) vs row id2=306

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 26 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 20 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 42 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.236 row id1=(8297, 1) (Ge-0) vs row id2=322

Table 307: row id1=(8297, 1) (Ge-0) vs row id2=322

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 37 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 33 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 21 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.237 row id1=(8298, 1) (Got-22) vs row id2=46

Table 308: row id1=(8298, 1) (Got-22) vs row id2=46

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 9  | 6  | 8  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 1  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 309: detailed difference for row id1=(8298, 1) (Got-22) vs row id2=46

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (8298, 1)/Got-22 | AtMSQTsnp 306 | G     | 46      | AtMSQTsnp 306 | CG    |

3.238 row id1=(8299, 1) (Got-7) vs row id2=45

Table 310: row id1=(8299, 1) (Got-7) vs row id2=45

|  |  | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|--|--|---|----|---|---|---|---|----|----|----|----|----|----|

|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
|    | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| -  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 0 | 0 | 0 | 10 | 4  | 9  | 6  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 0 | 36 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 0 | 0  | 23 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 1 | 0 | 1 | 0  | 0  | 28 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 1 | 0  | 0  | 0  | 30 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

3.239    row id1=(8300, 1) (Gr-1) vs row id2=302

Table 311: row id1=(8300, 1) (Gr-1) vs row id2=302

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 35 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 19 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 38 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.240    row id1=(8301, 1) (Gu-0) vs row id2=54

Table 312: row id1=(8301, 1) (Gu-0) vs row id2=54

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 7  | 9  | 7  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.241    row id1=(8302, 1) (Gy-0) vs row id2=68

Table 313: row id1=(8302, 1) (Gy-0) vs row id2=68

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 11 | 10 | 10 | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 1  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.242 row id1=(8303, 1) (H55) vs row id2=323

Table 314: row id1=(8303, 1) (H55) vs row id2=323

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 34 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 27 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.243 row id1=(8304, 1) (Hi-0) vs row id2=307

Table 315: row id1=(8304, 1) (Hi-0) vs row id2=307

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 33 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 28 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 26 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.244 row id1=(8306, 1) (Hov4-1) vs row id2=348

Table 316: row id1=(8306, 1) (Hov4-1) vs row id2=348

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 33 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.245 row id1=(8308, 1) (HR-10) vs row id2=34

Table 317: row id1=(8308, 1) (HR-10) vs row id2=34

|    |   | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 3  | 7  | 7 | 11 | 7 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 30 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |



|    |   |   |   |   |    |    |    |   |   |   |   |   |   |
|----|---|---|---|---|----|----|----|---|---|---|---|---|---|
| C  | 1 | 0 | 1 | 0 | 27 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0 | 0 | 1 | 0 | 0  | 31 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 0 | 0 | 0  | 0  | 22 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

3.246    row id1=(8309, 1) (HR-5) vs row id2=33

Table 318: row id1=(8309, 1) (HR-5) vs row id2=33

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 3  | 10 | 5  | 8  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 31 | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 319: detailed difference for row id1=(8309, 1) (HR-5) vs row id2=33

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (8309, 1)/HR-5 | AtMSQTsnp 114 | A     | 33      | AtMSQTsnp 114 | AG    |

3.247    row id1=(8310, 1) () vs row id2=308

Table 320: row id1=(8310, 1) () vs row id2=308

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 53 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 19 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 18 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 23 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.248    row id1=(8311, 1) (In-0) vs row id2=324

Table 321: row id1=(8311, 1) (In-0) vs row id2=324

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 28 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 32 | 0 | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AG | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.249    row id1=(8312, 1) (Is-0) vs row id2=309

Table 322: row id1=(8312, 1) (Is-0) vs row id2=309

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 30 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 32 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.250    row id1=(8313, 1) (Jm-0) vs row id2=310

Table 323: row id1=(8313, 1) (Jm-0) vs row id2=310

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 32 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.251    row id1=(8314, 1) (Ka-0) vs row id2=311

Table 324: row id1=(8314, 1) (Ka-0) vs row id2=311

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 30 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 27 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.252    row id1=(8316, 1) (Kin-0) vs row id2=91

Table 325: row id1=(8316, 1) (Kin-0) vs row id2=91

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 3  | 12 | 4  | 8  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 2  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 1 | 0 | 5  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 2 | 0 | 2  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 326: detailed difference for row id1=(8316, 1) (Kin-0) vs row id2=91

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (8316, 1)/Kin-0 | AtMSQTsnp 138 | CT    | 91      | AtMSQTsnp 138 | C     |

3.253 row id1=(8317, 1) (Kno-10) vs row id2=3

Table 327: row id1=(8317, 1) (Kno-10) vs row id2=3

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 2 | 0 | 3  | 8  | 4  | 6  | 4  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 2  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 4 | 0 | 0  | 0  | 18 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 1  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 4  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 328: detailed difference for row id1=(8317, 1) (Kno-10) vs row id2=3

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (8317, 1)/Kno-10 | AtMSQTsnp 378 | C     | 3       | AtMSQTsnp 378 | G     |

3.254 row id1=(8318, 1) (Kno-18) vs row id2=4

Table 329: row id1=(8318, 1) (Kno-18) vs row id2=4

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1 | 0 | 3  | 7  | 3  | 11 | 5  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 2  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 1 | 0 | 1  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 3 | 0 | 1  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.255 row id1=(8319, 1) (Kondara) vs row id2=88

Table 330: row id1=(8319, 1) (Kondara) vs row id2=88

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1 | 1 | 0  | 11 | 5  | 4  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 3  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 2  | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 331: detailed difference for row id1=(8319, 1) (Kondara) vs row id2=88

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (8319, 1)/Kondara | AtMSQTsnp 114 | G     | 88      | AtMSQTsnp 114 | A     |

3.256 row id1=(8320, 1) (Kz-1) vs row id2=43

Table 332: row id1=(8320, 1) (Kz-1) vs row id2=43

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 5  | 8  | 9  | 4  | 8  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 3  | 0  | 22 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 333: detailed difference for row id1=(8320, 1) (Kz-1) vs row id2=43

| row id1        | col id1      | call1 | row id2 | col id2      | call2 |
|----------------|--------------|-------|---------|--------------|-------|
| (8320, 1)/Kz-1 | AtMSQTsnp 15 | C     | 43      | AtMSQTsnp 15 | T     |

3.257 row id1=(8321, 1) (Kz-13) vs row id2=298

Table 334: row id1=(8321, 1) (Kz-13) vs row id2=298

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 20 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 26 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 18 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 2  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 3  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 12 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GT | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

3.258    row id1=(8322, 1) (Kz-9) vs row id2=44

Table 335: row id1=(8322, 1) (Kz-9) vs row id2=44

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 1 | 1  | 6  | 8  | 8  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 2 | 0 | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.259    row id1=(8323, 1) (Lc-0) vs row id2=325

Table 336: row id1=(8323, 1) (Lc-0) vs row id2=325

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 23 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 37 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.260    row id1=(8324, 1) (Ler-1) vs row id2=55

Table 337: row id1=(8324, 1) (Ler-1) vs row id2=55

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 1  | 10 | 7  | 9  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 19 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 338: detailed difference for row id1=(8324, 1) (Ler-1) vs row id2=55

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (8324, 1)/Ler-1 | AtMSQTsnp 159 | C     | 55      | AtMSQTsnp 159 | T     |

3.261 row id1=(8325, 1) (Lip-0) vs row id2=326

Table 339: row id1=(8325, 1) (Lip-0) vs row id2=326

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 28 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 26 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.262 row id1=(8326, 1) (Lis-1) vs row id2=365

Table 340: row id1=(8326, 1) (Lis-1) vs row id2=365

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 38 | 0 | 1  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 32 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.263 row id1=(8328, 1) (LL-0) vs row id2=87

Table 341: row id1=(8328, 1) (LL-0) vs row id2=87

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 4  | 11 | 7  | 11 | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.264 row id1=(8329, 1) (Lm-2) vs row id2=327

Table 342: row id1=(8329, 1) (Lm-2) vs row id2=327

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 38 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 24 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.265    row id1=(8332, 1) (Lp2-2) vs row id2=31

Table 343: row id1=(8332, 1) (Lp2-2) vs row id2=31

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |   |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|---|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 1 | 0 | 1  | 7  | 10 | 12 | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 0 | 0 | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 0 | 0 | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 0 | 0 | 2  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.266    row id1=(8333, 1) (Lp2-6) vs row id2=32

Table 344: row id1=(8333, 1) (Lp2-6) vs row id2=32

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |   |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|---|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 2 | 0 | 2  | 7  | 6  | 8  | 5  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 0 | 0 | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 0 | 0 | 1  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 0 | 0 | 1  | 0  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.267    row id1=(8334, 1) (Lu-1) vs row id2=328

Table 345: row id1=(8334, 1) (Lu-1) vs row id2=328

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 29 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.268    row id1=(8335, 1) (Lund) vs row id2=292

Table 346: row id1=(8335, 1) (Lund) vs row id2=292

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 32 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.269 row id1=(8336, 1) (Lz-0) vs row id2=52

Table 347: row id1=(8336, 1) (Lz-0) vs row id2=52

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 10 | 6  | 8  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 39 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 2 | 0 | 3  | 0  | 27 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 348: detailed difference for row id1=(8336, 1) (Lz-0) vs row id2=52

|                |               |       |         |               |       |
|----------------|---------------|-------|---------|---------------|-------|
| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
| (8336, 1)/Lz-0 | AtMSQTsnp 159 | C     | 52      | AtMSQTsnp 159 | T     |

3.270 row id1=(8337, 1) (Mir-0) vs row id2=329

Table 349: row id1=(8337, 1) (Mir-0) vs row id2=329

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 29 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 29 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.271 row id1=(8338, 1) (Mr-0) vs row id2=77

Table 350: row id1=(8338, 1) (Mr-0) vs row id2=77

|  |  | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|--|--|---|----|---|---|---|---|----|----|----|----|----|----|



|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
|    | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| -  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 0 | 0 | 1 | 10 | 4  | 10 | 1  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 2 | 22 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 3 | 0  | 31 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 1 | 0 | 2 | 0  | 0  | 39 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 2 | 0  | 0  | 0  | 21 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

3.272    row id1=(8339, 1) (Mrk-0) vs row id2=72

Table 351: row id1=(8339, 1) (Mrk-0) vs row id2=72

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 12 | 6  | 7  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 3  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 1 | 0  | 0  | 1  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 352: detailed difference for row id1=(8339, 1) (Mrk-0) vs row id2=72

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (8339, 1)/Mrk-0 | AtMSQTsnp 325 | T     | 72      | AtMSQTsnp 325 | C     |

3.273    row id1=(8340, 1) (Ms-0) vs row id2=92

Table 353: row id1=(8340, 1) (Ms-0) vs row id2=92

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2 | 0 | 0  | 8  | 6  | 10 | 7  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 25 | 0  | 0  | 0  | 0  | 2  | 0  | 0  | 0  | 0  |
| C  | 4 | 0 | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 2 | 0 | 3  | 1  | 0  | 23 | 0  | 0  | 1  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 1  | 0  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 354: detailed difference for row id1=(8340, 1) (Ms-0) vs row id2=92

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (8340, 1)/Ms-0 | AtMSQTsnp 173 | G     | 92      | AtMSQTsnp 173 | A     |
| (8340, 1)/Ms-0 | AtMSQTsnp 177 | A     | 92      | AtMSQTsnp 177 | AG    |
| (8340, 1)/Ms-0 | AtMSQTsnp 249 | A     | 92      | AtMSQTsnp 249 | AG    |
| (8340, 1)/Ms-0 | AtMSQTsnp 323 | G     | 92      | AtMSQTsnp 323 | AG    |

3.274 row id1=(8341, 1) (Mt-0) vs row id2=79

Table 355: row id1=(8341, 1) (Mt-0) vs row id2=79

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 3  | 9  | 8  | 7  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 3  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 1  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 356: detailed difference for row id1=(8341, 1) (Mt-0) vs row id2=79

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (8341, 1)/Mt-0 | AtMSQTsnp 138 | CT    | 79      | AtMSQTsnp 138 | C     |

3.275 row id1=(8342, 1) (Mz-0) vs row id2=73

Table 357: row id1=(8342, 1) (Mz-0) vs row id2=73

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 8  | 6  | 9  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 3  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.276 row id1=(8343, 1) (Na-1) vs row id2=330

Table 358: row id1=(8343, 1) (Na-1) vs row id2=330

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 35 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 22 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.277 row id1=(8344, 1) (Nd-1) vs row id2=56

Table 359: row id1=(8344, 1) (Nd-1) vs row id2=56

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1 | 0 | 1  | 8  | 5  | 9  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 40 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 1 | 0 | 1  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.278    row id1=(8345, 1) (NFA-10) vs row id2=36

Table 360: row id1=(8345, 1) (NFA-10) vs row id2=36

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 1  | 10 | 7  | 9  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 3  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 1  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 1  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 361: detailed difference for row id1=(8345, 1) (NFA-10) vs row id2=36

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (8345, 1)/NFA-10 | AtMSQTsnp 159 | T     | 36      | AtMSQTsnp 159 | C     |

3.279    row id1=(8346, 1) (NFA-8) vs row id2=35

Table 362: row id1=(8346, 1) (NFA-8) vs row id2=35

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1 | 0 | 3  | 7  | 4  | 6  | 7  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.280    row id1=(8347, 1) (Nok-3) vs row id2=80

Table 363: row id1=(8347, 1) (Nok-3) vs row id2=80

|   |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|---|---|---|----|---|---|---|---|----|----|----|----|----|----|
|   | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| - | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
| NA | 1 | 0 | 1 | 7  | 4  | 10 | 6  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 1 | 37 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 1 | 0  | 22 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 1 | 0 | 0 | 0  | 0  | 29 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 1 | 0 | 2 | 0  | 1  | 0  | 25 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 364: detailed difference for row id1=(8347, 1) (Nok-3) vs row id2=80

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (8347, 1)/Nok-3 | AtMSQTsnp 334 | T     | 80      | AtMSQTsnp 334 | C     |

3.281 row id1=(8348, 1) (Nw-0) vs row id2=331

Table 365: row id1=(8348, 1) (Nw-0) vs row id2=331

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 42 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31 | 0 | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.282 row id1=(8349, 1) () vs row id2=21

Table 366: row id1=(8349, 1) () vs row id2=21

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 7  | 9  | 9  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 1 | 0 | 1  | 0  | 18 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 1  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.283 row id1=(8350, 1) () vs row id2=22

Table 367: row id1=(8350, 1) () vs row id2=22

|    |   | - | NA | A  | C  | G  | T | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|---|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 9  | 8  | 5  | 4 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 23 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 27 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 1  | 0  | 37 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|----|---|---|---|---|---|---|
| T  | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

Table 368: detailed difference for row id1=(8350, 1) ( ) vs row id2=22

| row id1    | col id1       | call1 | row id2 | col id2       | call2 |
|------------|---------------|-------|---------|---------------|-------|
| (8350, 1)/ | AtMSQTsnp 373 | G     | 22      | AtMSQTsnp 373 | A     |

3.284 row id1=(8351, 1) (Ost-0) vs row id2=332

Table 369: row id1=(8351, 1) (Ost-0) vs row id2=332

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 35 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 24 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 29 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.285 row id1=(8352, 1) (Oy-0) vs row id2=95

Table 370: row id1=(8352, 1) (Oy-0) vs row id2=95

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2 | 0 | 2  | 7  | 9  | 7  | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 4  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.286 row id1=(8353, 1) (Pa-1) vs row id2=333

Table 371: row id1=(8353, 1) (Pa-1) vs row id2=333

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 18 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 33 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.287    row id1=(8354, 1) (Per-1) vs row id2=334

Table 372: row id1=(8354, 1) (Per-1) vs row id2=334

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 32 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 25 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 25 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 37 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.288    row id1=(8355, 1) (Petergof) vs row id2=335

Table 373: row id1=(8355, 1) (Petergof) vs row id2=335

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 29 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 27 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 34 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.289    row id1=(8356, 1) (Pi-0) vs row id2=336

Table 374: row id1=(8356, 1) (Pi-0) vs row id2=336

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 36 | 0 | 0  | 0 | 0 | 1 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 27 | 0 | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 375: detailed difference for row id1=(8356, 1) (Pi-0) vs row id2=336

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (8356, 1)/Pi-0 | AtMSQTsnp 274 | G     | 336     | AtMSQTsnp 274 | T     |
| (8356, 1)/Pi-0 | AtMSQTsnp 279 | T     | 336     | AtMSQTsnp 279 | C     |

3.290 row id1=(8357, 1) (Pla-0) vs row id2=337

Table 376: row id1=(8357, 1) (Pla-0) vs row id2=337

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 36 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 22 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 33 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.291 row id1=(8358, 1) (Pna-10) vs row id2=8

Table 377: row id1=(8358, 1) (Pna-10) vs row id2=8

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 0  | 10 | 3  | 5  | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 3  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 3  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 3  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 4  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.292 row id1=(8359, 1) (Pna-17) vs row id2=7

Table 378: row id1=(8359, 1) (Pna-17) vs row id2=7

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3 | 0 | 2  | 8  | 7  | 7  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 2 | 0 | 1  | 0  | 17 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 3 | 0 | 0  | 0  | 0  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.293 row id1=(8360, 1) (Pro-0) vs row id2=86

Table 379: row id1=(8360, 1) (Pro-0) vs row id2=86

|    |   | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 3  | 6  | 3 | 14 | 7 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 35 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |    |    |    |   |   |   |   |   |   |
|----|---|---|---|---|----|----|----|---|---|---|---|---|---|
| C  | 0 | 0 | 2 | 0 | 23 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0 | 0 | 0 | 0 | 0  | 30 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 1 | 0 | 0 | 0 | 0  | 0  | 21 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

3.294    row id1=(8361, 1) (Pu2-23) vs row id2=30

Table 380: row id1=(8361, 1) (Pu2-23) vs row id2=30

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 0  | 8  | 9  | 8  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 1  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.295    row id1=(8362, 1) (Pu2-7) vs row id2=29

Table 381: row id1=(8362, 1) (Pu2-7) vs row id2=29

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 1 | 0  | 5  | 3  | 13 | 5  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 37 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.296    row id1=(8363, 1) (Pu2-8) vs row id2=296

Table 382: row id1=(8363, 1) (Pu2-8) vs row id2=296

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 27 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 34 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |



3.297 row id1=(8364, 1) (Ra-0) vs row id2=69

Table 383: row id1=(8364, 1) (Ra-0) vs row id2=69

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 11 | 9  | 7  | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 27 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 1  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 1  | 0  | 16 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 384: detailed difference for row id1=(8364, 1) (Ra-0) vs row id2=69

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (8364, 1)/Ra-0 | AtMSQTsnp 223 | A     | 69      | AtMSQTsnp 223 | G     |
| (8364, 1)/Ra-0 | AtMSQTsnp 321 | C     | 69      | AtMSQTsnp 321 | A     |
| (8364, 1)/Ra-0 | AtMSQTsnp 334 | T     | 69      | AtMSQTsnp 334 | C     |

3.298 row id1=(8365, 1) (Rak-2) vs row id2=338

Table 385: row id1=(8365, 1) (Rak-2) vs row id2=338

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 38 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 27 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.299 row id1=(8367, 1) (Ren-1) vs row id2=47

Table 386: row id1=(8367, 1) (Ren-1) vs row id2=47

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2 | 0 | 0  | 6  | 12 | 6  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 1  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 1  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 387: detailed difference for row id1=(8367, 1) (Ren-1) vs row id2=47

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (8367, 1)/Ren-1 | AtMSQTsnp 388 | C     | 47      | AtMSQTsnp 388 | A     |

3.300 row id1=(8368, 1) (Ren-11) vs row id2=48

Table 388: row id1=(8368, 1) (Ren-11) vs row id2=48

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 5  | 22 | 24 | 17 | 18 | 0  | 0  | 0  | 0  | 0  | 1  |
| A  | 0 | 0 | 0  | 16 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 11 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 17 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 15 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.301 row id1=(8369, 1) (Rev-1) vs row id2=347

Table 389: row id1=(8369, 1) (Rev-1) vs row id2=347

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 30 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 34 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.302 row id1=(8370, 1) (Rmx-A02) vs row id2=5

Table 390: row id1=(8370, 1) (Rmx-A02) vs row id2=5

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 2  | 8  | 5  | 7  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 5  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 2 | 0 | 0  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 2  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 2  | 0  | 0  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.303 row id1=(8371, 1) (Rmx-A180) vs row id2=6

Table 391: row id1=(8371, 1) (Rmx-A180) vs row id2=6

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 4 | 0 | 2  | 6  | 5  | 6  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 1  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 2  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.304    row id1=(8372, 1) (RRS-10) vs row id2=2

Table 392: row id1=(8372, 1) (RRS-10) vs row id2=2

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 10 | 4  | 7  | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 32 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 3  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 3  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 393: detailed difference for row id1=(8372, 1) (RRS-10) vs row id2=2

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (8372, 1)/RRS-10 | AtMSQTsnp 140 | A     | 2       | AtMSQTsnp 140 | C     |

3.305    row id1=(8374, 1) (Rsch-4) vs row id2=290

Table 394: row id1=(8374, 1) (Rsch-4) vs row id2=290

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 33 | 0 | 0  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 25 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.306    row id1=(8375, 1) (Rubezhnoe-1) vs row id2=339

Table 395: row id1=(8375, 1) (Rubezhnoe-1) vs row id2=339

|   |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|---|---|---|----|---|---|---|---|----|----|----|----|----|----|
|   | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| - | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 32 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 31 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.307    row id1=(8376, 1) (Sanna-2) vs row id2=376

Table 396: row id1=(8376, 1) (Sanna-2) vs row id2=376

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 38 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 19 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 29 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.308    row id1=(8377, 1) (Santa Clara) vs row id2=340

Table 397: row id1=(8377, 1) (Santa Clara) vs row id2=340

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 37 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 27 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.309    row id1=(8378, 1) (Sap-0) vs row id2=341

Table 398: row id1=(8378, 1) (Sap-0) vs row id2=341

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 26 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 35 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 33 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.310 row id1=(8379, 1) (Se-0) vs row id2=83

Table 399: row id1=(8379, 1) (Se-0) vs row id2=83

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 2  | 9  | 3  | 13 | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 3  | 0  | 18 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.311 row id1=(8380, 1) (Sf-1) vs row id2=300

Table 400: row id1=(8380, 1) (Sf-1) vs row id2=300

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 39 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 27 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 29 | 0 | 0  | 0 | 0 | 1 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 401: detailed difference for row id1=(8380, 1) (Sf-1) vs row id2=300

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (8380, 1)/Sf-1 | AtMSQTsnp 274 | T     | 300     | AtMSQTsnp 274 | G     |
| (8380, 1)/Sf-1 | AtMSQTsnp 278 | G     | 300     | AtMSQTsnp 278 | A     |

3.312 row id1=(8381, 1) (Sorbo) vs row id2=90

Table 402: row id1=(8381, 1) (Sorbo) vs row id2=90

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 1 | 3  | 11 | 10 | 4  | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 5  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 2 | 0 | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 4  | 0  | 0  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.313 row id1=(8382, 1) (Spr1-2) vs row id2=19

Table 403: row id1=(8382, 1) (Spr1-2) vs row id2=19

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 1 | 2  | 8  | 5  | 8  | 4  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 1  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 1 | 0 | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 2  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.314 row id1=(8383, 1) (Spr1-6) vs row id2=20

Table 404: row id1=(8383, 1) (Spr1-6) vs row id2=20

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1 | 1 | 0  | 5  | 8  | 11 | 7  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 3  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 2  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.315 row id1=(8384, 1) (Sq-1) vs row id2=37

Table 405: row id1=(8384, 1) (Sq-1) vs row id2=37

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 0  | 9  | 9  | 9  | 4  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 1 | 0 | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

3.316 row id1=(8385, 1) (Sq-8) vs row id2=38

Table 406: row id1=(8385, 1) (Sq-8) vs row id2=38

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1 | 0 | 0  | 9  | 9  | 5  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 1 | 0 | 1  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 2 | 0 | 1  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

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|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.317    row id1=(8386, 1) (Sr:5) vs row id2=377

Table 407: row id1=(8386, 1) (Sr:5) vs row id2=377

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 4  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 33 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 43 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 37 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.318    row id1=(8387, 1) (St-0) vs row id2=342

Table 408: row id1=(8387, 1) (St-0) vs row id2=342

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 34 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 32 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 32 | 0 | 0  | 0 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 24 | 0 | 0  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.319    row id1=(8388, 1) (Stw-0) vs row id2=343

Table 409: row id1=(8388, 1) (Stw-0) vs row id2=343

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |   |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|---|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| NA | 31 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| A  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| C  | 21 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| G  | 33 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| T  | 31 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0 |

3.320    row id1=(8389, 1) (Ta-0) vs row id2=344

Table 410: row id1=(8389, 1) (Ta-0) vs row id2=344

|    |    |   |    |   |   |   |   |    |    |    |    |    |    |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 25 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 34 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 30 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.321    row id1=(8390, 1) (Tamm-2) vs row id2=41

Table 411: row id1=(8390, 1) (Tamm-2) vs row id2=41

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 2  | 9  | 6  | 9  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 2  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.322    row id1=(8391, 1) (Tamm-27) vs row id2=42

Table 412: row id1=(8391, 1) (Tamm-27) vs row id2=42

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 2  | 10 | 6  | 9  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 3  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 2  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.323    row id1=(8392, 1) (Ts-1) vs row id2=84

Table 413: row id1=(8392, 1) (Ts-1) vs row id2=84

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 2  | 10 | 3  | 12 | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 4  | 0  | 19 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |



|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3.324    row id1=(8393, 1) (Ts-5) vs row id2=85

Table 414: row id1=(8393, 1) (Ts-5) vs row id2=85

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 2  | 12 | 5  | 9  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.325    row id1=(8394, 1) (Tsu-1) vs row id2=78

Table 415: row id1=(8394, 1) (Tsu-1) vs row id2=78

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 0  | 11 | 7  | 8  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 3  | 24 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 30 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 1  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 416: detailed difference for row id1=(8394, 1) (Tsu-1) vs row id2=78

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (8394, 1)/Tsu-1 | AtMSQTsnp 138 | T     | 78      | AtMSQTsnp 138 | C     |
| (8394, 1)/Tsu-1 | AtMSQTsnp 334 | C     | 78      | AtMSQTsnp 334 | T     |

3.326    row id1=(8395, 1) (Tu-0) vs row id2=345

Table 417: row id1=(8395, 1) (Tu-0) vs row id2=345

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 24 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 32 | 0 | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 32 | 0 | 1  | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.327 row id1=(8396, 1) (Ull2-3) vs row id2=24

Table 418: row id1=(8396, 1) (Ull2-3) vs row id2=24

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 2  | 8  | 5  | 7  | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 3  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.328 row id1=(8397, 1) (Ull2-5) vs row id2=23

Table 419: row id1=(8397, 1) (Ull2-5) vs row id2=23

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2 | 0 | 2  | 8  | 4  | 7  | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 1  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 0  | 0  | 21 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 3  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 4  | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.329 row id1=(8398, 1) (Uod-1) vs row id2=49

Table 420: row id1=(8398, 1) (Uod-1) vs row id2=49

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 6  | 6  | 11 | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 31 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 1 | 0  | 0  | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.330 row id1=(8399, 1) (Uod-7) vs row id2=50

Table 421: row id1=(8399, 1) (Uod-7) vs row id2=50

|    |   | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 2  | 5  | 5 | 11 | 7 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 31 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |    |    |    |   |   |   |   |   |   |
|----|---|---|---|---|----|----|----|---|---|---|---|---|---|
| C  | 1 | 0 | 2 | 0 | 25 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0 | 0 | 2 | 0 | 0  | 30 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 1 | 0 | 0  | 0  | 26 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

3.331 row id1=(8400, 1) (Van-0) vs row id2=64

Table 422: row id1=(8400, 1) (Van-0) vs row id2=64

|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    |   |   |    |    |    |    |    |    |    |    |    |    |    |
|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 2  | 5  | 5  | 7  | 4  | 0  | 1  | 0  | 1  | 1  | 0  |
| A  | 0 | 0 | 2  | 23 | 0  | 2  | 0  | 2  | 6  | 2  | 0  | 0  | 0  |
| C  | 0 | 0 | 1  | 0  | 16 | 0  | 0  | 0  | 0  | 0  | 2  | 5  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 24 | 0  | 0  | 3  | 0  | 0  | 0  | 1  |
| T  | 0 | 0 | 2  | 0  | 1  | 0  | 23 | 0  | 0  | 1  | 0  | 3  | 2  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 423: detailed difference for row id1=(8400, 1) (Van-0) vs row id2=64

|                 |               |       |         |               |       |
|-----------------|---------------|-------|---------|---------------|-------|
| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
| (8400, 1)/Van-0 | AtMSQTsnp 101 | A     | 64      | AtMSQTsnp 101 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 108 | G     | 64      | AtMSQTsnp 108 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 11  | T     | 64      | AtMSQTsnp 11  | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 12  | A     | 64      | AtMSQTsnp 12  | G     |
| (8400, 1)/Van-0 | AtMSQTsnp 188 | C     | 64      | AtMSQTsnp 188 | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 194 | T     | 64      | AtMSQTsnp 194 | AT    |
| (8400, 1)/Van-0 | AtMSQTsnp 197 | A     | 64      | AtMSQTsnp 197 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 203 | A     | 64      | AtMSQTsnp 203 | AT    |
| (8400, 1)/Van-0 | AtMSQTsnp 214 | A     | 64      | AtMSQTsnp 214 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 220 | A     | 64      | AtMSQTsnp 220 | G     |
| (8400, 1)/Van-0 | AtMSQTsnp 242 | C     | 64      | AtMSQTsnp 242 | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 260 | A     | 64      | AtMSQTsnp 260 | AC    |
| (8400, 1)/Van-0 | AtMSQTsnp 266 | T     | 64      | AtMSQTsnp 266 | GT    |
| (8400, 1)/Van-0 | AtMSQTsnp 267 | C     | 64      | AtMSQTsnp 267 | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 281 | T     | 64      | AtMSQTsnp 281 | C     |
| (8400, 1)/Van-0 | AtMSQTsnp 285 | T     | 64      | AtMSQTsnp 285 | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 29  | A     | 64      | AtMSQTsnp 29  | AT    |
| (8400, 1)/Van-0 | AtMSQTsnp 323 | A     | 64      | AtMSQTsnp 323 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 359 | G     | 64      | AtMSQTsnp 359 | GT    |
| (8400, 1)/Van-0 | AtMSQTsnp 378 | C     | 64      | AtMSQTsnp 378 | CG    |
| (8400, 1)/Van-0 | AtMSQTsnp 390 | T     | 64      | AtMSQTsnp 390 | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 395 | A     | 64      | AtMSQTsnp 395 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 397 | T     | 64      | AtMSQTsnp 397 | GT    |
| (8400, 1)/Van-0 | AtMSQTsnp 410 | G     | 64      | AtMSQTsnp 410 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 63  | A     | 64      | AtMSQTsnp 63  | AC    |
| (8400, 1)/Van-0 | AtMSQTsnp 65  | A     | 64      | AtMSQTsnp 65  | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 8   | G     | 64      | AtMSQTsnp 8   | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 87  | C     | 64      | AtMSQTsnp 87  | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 90  | C     | 64      | AtMSQTsnp 90  | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 97  | C     | 64      | AtMSQTsnp 97  | CG    |

3.332 row id1=(8401, 1) (V-1) vs row id2=17

Table 424: row id1=(8401, 1) (V-1) vs row id2=17

|   |   |   |    |   |   |   |   |    |    |    |    |    |    |
|---|---|---|----|---|---|---|---|----|----|----|----|----|----|
|   |   |   |    |   |   |   |   |    |    |    |    |    |    |
|   |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|   | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| - | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |    |    |    |    |   |   |   |   |   |   |
|----|---|---|---|----|----|----|----|---|---|---|---|---|---|
| NA | 1 | 0 | 4 | 8  | 10 | 11 | 4  | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0 | 0 | 2 | 28 | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 0 | 0  | 27 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0 | 0 | 0 | 0  | 0  | 32 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0 | 0 | 0 | 0  | 0  | 0  | 22 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

3.333 row id1=(8402, 1) (V-6) vs row id2=18

Table 425: row id1=(8402, 1) (V-6) vs row id2=18

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 1  | 6  | 7  | 12 | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 36 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 24 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.334 row id1=(8403, 1) (Wa-1) vs row id2=81

Table 426: row id1=(8403, 1) (Wa-1) vs row id2=81

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 3  | 9  | 9  | 11 | 8  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 4  | 19 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 2 | 0 | 0  | 0  | 19 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.335 row id1=(8404, 1) (Wei-0) vs row id2=59

Table 427: row id1=(8404, 1) (Wei-0) vs row id2=59

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 0 | 0 | 3  | 13 | 8  | 9  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 2  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 3  | 0  | 0  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.336 row id1=(8405, 1) (Ws-0) vs row id2=60

Table 428: row id1=(8405, 1) (Ws-0) vs row id2=60

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 0  | 7  | 5  | 10 | 8  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 1  | 32 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 4  | 0  | 20 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 0  | 0  | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 1  | 0  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.337 row id1=(8406, 1) (Ws-2) vs row id2=96

Table 429: row id1=(8406, 1) (Ws-2) vs row id2=96

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3 | 0 | 0  | 9  | 7  | 7  | 8  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 4 | 0 | 4  | 19 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 2  | 0  | 17 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 1 | 0 | 2  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 1 | 0 | 4  | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.338 row id1=(8407, 1) (Wt-5) vs row id2=74

Table 430: row id1=(8407, 1) (Wt-5) vs row id2=74

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2 | 0 | 4  | 10 | 9  | 8  | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 3  | 0  | 25 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 3  | 0  | 0  | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 431: detailed difference for row id1=(8407, 1) (Wt-5) vs row id2=74

|                |               |       |         |               |       |
|----------------|---------------|-------|---------|---------------|-------|
| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
| (8407, 1)/Wt-5 | AtMSQTsnp 334 | C     | 74      | AtMSQTsnp 334 | T     |

3.339 row id1=(8408, 1) (Yo-0) vs row id2=61

Table 432: row id1=(8408, 1) (Yo-0) vs row id2=61

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 0 | 0 | 2  | 10 | 6  | 8  | 5  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 33 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 1 | 0 | 2  | 0  | 19 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 26 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 433: detailed difference for row id1=(8408, 1) (Yo-0) vs row id2=61

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (8408, 1)/Yo-0 | AtMSQTsnp 138 | CT    | 61      | AtMSQTsnp 138 | C     |

3.340 row id1=(8409, 1) (Zdr-1) vs row id2=25

Table 434: row id1=(8409, 1) (Zdr-1) vs row id2=25

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |  |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1 | 0 | 1  | 6  | 6  | 10 | 4  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0 | 0 | 0  | 28 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0 | 0 | 1  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0 | 0 | 0  | 0  | 0  | 27 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 1 | 0 | 0  | 0  | 0  | 0  | 34 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 435: detailed difference for row id1=(8409, 1) (Zdr-1) vs row id2=25

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (8409, 1)/Zdr-1 | AtMSQTsnp 260 | A     | 25      | AtMSQTsnp 260 | C     |

3.341 row id1=(8410, 1) (Zdr-6) vs row id2=26

Table 436: row id1=(8410, 1) (Zdr-6) vs row id2=26

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1 | 0 | 0  | 6  | 11 | 9  | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 2  | 28 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0 | 0 | 3  | 0  | 25 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 0  | 0  | 0  | 29 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 0  | 0  | 0  | 0  | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

3.342 row id1=(8411, 1) (Rd-0) vs row id2=312

Table 437: row id1=(8411, 1) (Rd-0) vs row id2=312

|    |    | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 27 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 32 | 0 | 0  | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 30 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 29 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28 | 0 | 0  | 0 | 0 | 0 | 2 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

3.343 row id1=(8429, 1) (N13) vs row id2=58

Table 438: row id1=(8429, 1) (N13) vs row id2=58

|    |   | - | NA | A  | C  | G  | T  | AC | AG | AT | CG | CT | GT |
|----|---|---|----|----|----|----|----|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2 | 0 | 2  | 7  | 5  | 7  | 11 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 1 | 0 | 0  | 23 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 2 | 0 | 1  | 0  | 22 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0 | 0 | 1  | 0  | 0  | 35 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0 | 0 | 2  | 0  | 0  | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

4 Diff Matrix for each SNP

4.1 col id1=AtMSQTsnp 10 vs col id2=AtMSQTsnp 10

Table 439: col id1=AtMSQTsnp 10 vs col id2=AtMSQTsnp 10

|    |     | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |  |
|----|-----|---|----|----|---|-----|---|----|----|----|----|----|----|--|
|    | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 2   | 0 | 0  | 0  | 0 | 4   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 38  | 0 | 0  | 73 | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 110 | 0 | 0  | 0  | 0 | 116 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.2 col id1=AtMSQTsnp 100 vs col id2=AtMSQTsnp 100

Table 440: col id1=AtMSQTsnp 100 vs col id2=AtMSQTsnp 100

|    |    | - | NA | A  | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 1  | 0 | 4 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 44 | 0 | 2  | 57 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |     |   |   |   |   |     |   |   |   |   |   |   |   |
|----|-----|---|---|---|---|-----|---|---|---|---|---|---|---|
| C  | 0   | 0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 102 | 0 | 0 | 1 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0   | 0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0   | 0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 1   | 0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0   | 0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0   | 0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0   | 0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0   | 0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 441: detailed difference for col id1=AtMSQTsnp 100 vs col id2=AtMSQTsnp 100

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 100 | G     | 27      | AtMSQTsnp 100 | A     |

### 4.3 col id1=AtMSQTsnp 101 vs col id2=AtMSQTsnp 101

Table 442: col id1=AtMSQTsnp 101 vs col id2=AtMSQTsnp 101

|    |    | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|-----|---|----|----|----|----|----|----|
| -  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1  | 0 | 0  | 2  | 0 | 2   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 54 | 0 | 2  | 51 | 0 | 0   | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 95 | 0 | 0  | 0  | 0 | 134 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 443: detailed difference for col id1=AtMSQTsnp 101 vs col id2=AtMSQTsnp 101

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 101 | A     | 64      | AtMSQTsnp 101 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 101 | A     | 64      | AtMSQTsnp 101 | AG    |

### 4.4 col id1=AtMSQTsnp 104 vs col id2=AtMSQTsnp 104

Table 444: col id1=AtMSQTsnp 104 vs col id2=AtMSQTsnp 104

|    |    | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|-----|----|----|----|----|----|----|
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 2  | 0 | 4   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 68 | 0 | 0  | 0 | 75 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 74 | 0 | 0  | 0 | 0  | 0 | 112 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 2  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

### 4.5 col id1=AtMSQTsnp 108 vs col id2=AtMSQTsnp 108

Table 445: col id1=AtMSQTsnp 108 vs col id2=AtMSQTsnp 108



|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 11 | 0 | 0  | 4  | 0 | 6  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 72 | 0 | 4  | 97 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 69 | 0 | 0  | 0  | 0 | 78 | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 446: detailed difference for col id1=AtMSQTsnp 108 vs col id2=AtMSQTsnp 108

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 108 | G     | 64      | AtMSQTsnp 108 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 108 | G     | 64      | AtMSQTsnp 108 | AG    |

#### 4.6 col id1=AtMSQTsnp 11 vs col id2=AtMSQTsnp 11

Table 447: col id1=AtMSQTsnp 11 vs col id2=AtMSQTsnp 11

|    |     | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|----|---|-----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4   | 0 | 0  | 0 | 2  | 0 | 3   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 47  | 0 | 2  | 0 | 60 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 103 | 0 | 0  | 0 | 0  | 0 | 120 | 0  | 0  | 0  | 0  | 2  | 0  |
| AC | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

Table 448: detailed difference for col id1=AtMSQTsnp 11 vs col id2=AtMSQTsnp 11

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 11 | T     | 64      | AtMSQTsnp 11 | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 11 | T     | 64      | AtMSQTsnp 11 | CT    |

#### 4.7 col id1=AtMSQTsnp 114 vs col id2=AtMSQTsnp 114

Table 449: col id1=AtMSQTsnp 114 vs col id2=AtMSQTsnp 114

|    |    | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|-----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 1  | 1  | 0 | 5   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 48 | 0 | 0  | 67 | 0 | 2   | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 99 | 0 | 0  | 2  | 0 | 113 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 450: detailed difference for col id1=AtMSQTsnp 114 vs col id2=AtMSQTsnp 114

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6907, 1)/CIBC-17 | AtMSQTsnp 114 | A     | 40      | AtMSQTsnp 114 | G     |
| (6924, 1)/HR-5    | AtMSQTsnp 114 | A     | 33      | AtMSQTsnp 114 | AG    |
| (6929, 1)/Kondara | AtMSQTsnp 114 | G     | 88      | AtMSQTsnp 114 | A     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 114 | A     | 40      | AtMSQTsnp 114 | G     |
| (8309, 1)/HR-5    | AtMSQTsnp 114 | A     | 33      | AtMSQTsnp 114 | AG    |
| (8319, 1)/Kondara | AtMSQTsnp 114 | G     | 88      | AtMSQTsnp 114 | A     |

4.8 col id1=AtMSQTsnp 118 vs col id2=AtMSQTsnp 118

Table 451: col id1=AtMSQTsnp 118 vs col id2=AtMSQTsnp 118

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2  | 0 | 3  | 1  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 66 | 0 | 9  | 89 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 81 | 0 | 16 | 0  | 0 | 75 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.9 col id1=AtMSQTsnp 12 vs col id2=AtMSQTsnp 12

Table 452: col id1=AtMSQTsnp 12 vs col id2=AtMSQTsnp 12

|    |    | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|-----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 8  | 0 | 0  | 5   | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 76 | 0 | 0  | 106 | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 66 | 0 | 0  | 1   | 0 | 77 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 453: detailed difference for col id1=AtMSQTsnp 12 vs col id2=AtMSQTsnp 12

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 12 | G     | 27      | AtMSQTsnp 12 | A     |
| (6977, 1)/Van-0 | AtMSQTsnp 12 | A     | 64      | AtMSQTsnp 12 | G     |
| (8400, 1)/Van-0 | AtMSQTsnp 12 | A     | 64      | AtMSQTsnp 12 | G     |

4.10 col id1=AtMSQTsnp 123 vs col id2=AtMSQTsnp 123

Table 454: col id1=AtMSQTsnp 123 vs col id2=AtMSQTsnp 123

|    |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|---|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2 | 0 | 0  | 4 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |   |     |   |    |   |   |   |   |   |   |   |
|----|----|---|---|-----|---|----|---|---|---|---|---|---|---|
| A  | 81 | 0 | 0 | 106 | 0 | 1  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0  | 0 | 0 | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 65 | 0 | 6 | 0   | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0  | 0 | 0 | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 2  | 0 | 0 | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0   | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 455: detailed difference for col id1=AtMSQTsnp 123 vs col id2=AtMSQTsnp 123

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 123 | A     | 27      | AtMSQTsnp 123 | G     |

4.11    col id1=AtMSQTsnp 126 vs col id2=AtMSQTsnp 126

Table 456: col id1=AtMSQTsnp 126 vs col id2=AtMSQTsnp 126

|    |     | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|----|---|-----|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 3  | 0  | 0 | 3   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 31  | 0 | 6  | 54 | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 117 | 0 | 19 | 0  | 0 | 107 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 1  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.12    col id1=AtMSQTsnp 128 vs col id2=AtMSQTsnp 128

Table 457: col id1=AtMSQTsnp 128 vs col id2=AtMSQTsnp 128

|    |     | - | NA | A | C | G   | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|---|-----|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4   | 0 | 1  | 0 | 0 | 2   | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 108 | 0 | 3  | 0 | 0 | 130 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 37  | 0 | 0  | 0 | 0 | 0   | 56 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 1   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

4.13    col id1=AtMSQTsnp 129 vs col id2=AtMSQTsnp 129

Table 458: col id1=AtMSQTsnp 129 vs col id2=AtMSQTsnp 129

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 89 | 0 | 6  | 27 | 0 | 56 | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| A  | 29 | 0 | 7  | 28 | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 42 | 0 | 1  | 0  | 0 | 55 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 459: detailed difference for col id1=AtMSQTsnp 129 vs col id2=AtMSQTsnp 129

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 129 | A     | 27      | AtMSQTsnp 129 | G     |

4.14    col id1=AtMSQTsnp 130 vs col id2=AtMSQTsnp 130

Table 460: col id1=AtMSQTsnp 130 vs col id2=AtMSQTsnp 130

|    |     | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |  |
|----|-----|---|----|---|----|---|-----|----|----|----|----|----|----|--|
|    | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 3   | 0 | 0  | 0 | 0  | 0 | 6   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 37  | 0 | 12 | 0 | 47 | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 110 | 0 | 27 | 0 | 0  | 0 | 100 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 461: detailed difference for col id1=AtMSQTsnp 130 vs col id2=AtMSQTsnp 130

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 130 | C     | 27      | AtMSQTsnp 130 | T     |

4.15    col id1=AtMSQTsnp 132 vs col id2=AtMSQTsnp 132

Table 462: col id1=AtMSQTsnp 132 vs col id2=AtMSQTsnp 132

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 3  | 0 | 0  | 0 | 3  | 0 | 4  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 76 | 0 | 0  | 0 | 92 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 68 | 0 | 2  | 0 | 0  | 0 | 92 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 3  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.16    col id1=AtMSQTsnp 138 vs col id2=AtMSQTsnp 138

Table 463: col id1=AtMSQTsnp 138 vs col id2=AtMSQTsnp 138

|    |    | - | NA | A | C  | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|----|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 19 | 0 | 1  | 0 | 20 | 0 | 3 | 0  | 0  | 0  | 0  | 0  | 0  |  |

|    |    |   |   |   |    |   |     |   |   |   |   |   |   |
|----|----|---|---|---|----|---|-----|---|---|---|---|---|---|
| A  | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 30 | 0 | 2 | 0 | 52 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 90 | 0 | 0 | 0 | 3  | 0 | 103 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 11 | 0 | 0 | 0 | 9  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |

Table 464: detailed difference for col id1=AtMSQTsnp 138 vs col id2=AtMSQTsnp 138

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6915, 1)/Ei-2   | AtMSQTsnp 138 | T     | 53      | AtMSQTsnp 138 | C     |
| (6917, 1)/F2     | AtMSQTsnp 138 | CT    | 13      | AtMSQTsnp 138 | C     |
| (6923, 1)/HR-10  | AtMSQTsnp 138 | CT    | 34      | AtMSQTsnp 138 | C     |
| (6937, 1)/Mrk-0  | AtMSQTsnp 138 | CT    | 72      | AtMSQTsnp 138 | C     |
| (6942, 1)/Nd-1   | AtMSQTsnp 138 | T     | 56      | AtMSQTsnp 138 | C     |
| (7516, 1)/V-1    | AtMSQTsnp 138 | CT    | 17      | AtMSQTsnp 138 | C     |
| (8273, 1)/C24    | AtMSQTsnp 138 | CT    | 57      | AtMSQTsnp 138 | C     |
| (8277, 1)/CIBC-5 | AtMSQTsnp 138 | CT    | 39      | AtMSQTsnp 138 | C     |
| (8316, 1)/Kin-0  | AtMSQTsnp 138 | CT    | 91      | AtMSQTsnp 138 | C     |
| (8341, 1)/Mt-0   | AtMSQTsnp 138 | CT    | 79      | AtMSQTsnp 138 | C     |
| (8394, 1)/Tsu-1  | AtMSQTsnp 138 | T     | 78      | AtMSQTsnp 138 | C     |
| (8408, 1)/Yo-0   | AtMSQTsnp 138 | CT    | 61      | AtMSQTsnp 138 | C     |

4.17    col id1=AtMSQTsnp 14 vs col id2=AtMSQTsnp 14

Table 465: col id1=AtMSQTsnp 14 vs col id2=AtMSQTsnp 14

|    |     | - | NA | A  | C | G | T   | AC | AG | AT | CG | CT | GT |  |
|----|-----|---|----|----|---|---|-----|----|----|----|----|----|----|--|
|    | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 2   | 0 | 0  | 1  | 0 | 0 | 5   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 44  | 0 | 2  | 60 | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 104 | 0 | 0  | 0  | 0 | 0 | 125 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.18    col id1=AtMSQTsnp 140 vs col id2=AtMSQTsnp 140

Table 466: col id1=AtMSQTsnp 140 vs col id2=AtMSQTsnp 140

|    |     | - | NA | A   | C  | G | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|-----|----|---|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3   | 0 | 0  | 1   | 3  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 106 | 2 | 6  | 112 | 1  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 43  | 0 | 4  | 0   | 62 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 467: detailed difference for col id1=AtMSQTsnp 140 vs col id2=AtMSQTsnp 140

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (8372, 1)/RRS-10 | AtMSQTsnp 140 | A     | 2       | AtMSQTsnp 140 | C     |

#### 4.19    col id1=AtMSQTsnp 142 vs col id2=AtMSQTsnp 142

Table 468: col id1=AtMSQTsnp 142 vs col id2=AtMSQTsnp 142

|    |     | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1   | 0 | 1  | 0 | 1  | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 100 | 0 | 26 | 0 | 80 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 47  | 0 | 19 | 0 | 0  | 0 | 65 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 2   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

#### 4.20    col id1=AtMSQTsnp 143 vs col id2=AtMSQTsnp 143

Table 469: col id1=AtMSQTsnp 143 vs col id2=AtMSQTsnp 143

|    |    | - | NA | A   | C  | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|-----|----|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 4   | 2  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 84 | 0 | 8  | 107 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 59 | 0 | 0  | 0   | 72 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 1  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

#### 4.21    col id1=AtMSQTsnp 145 vs col id2=AtMSQTsnp 145

Table 470: col id1=AtMSQTsnp 145 vs col id2=AtMSQTsnp 145

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 1  | 0 | 4  | 0 | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 81 | 0 | 16 | 0 | 74 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 63 | 0 | 7  | 0 | 0  | 0 | 88 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 471: detailed difference for col id1=AtMSQTsnp 145 vs col id2=AtMSQTsnp 145

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 145 | C     | 27      | AtMSQTsnp 145 | T     |

4.22    col id1=AtMSQTsnp 146 vs col id2=AtMSQTsnp 146

Table 472: col id1=AtMSQTsnp 146 vs col id2=AtMSQTsnp 146

|    |    | - | NA | A  | C  | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|----|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 67 | 0 | 3  | 55 | 17 | 19 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 56 | 0 | 1  | 64 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 29 | 0 | 2  | 0  | 0  | 30 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.23    col id1=AtMSQTsnp 15 vs col id2=AtMSQTsnp 15

Table 473: col id1=AtMSQTsnp 15 vs col id2=AtMSQTsnp 15

|    |    | - | NA | A | C   | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|-----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 0 | 4   | 0 | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 78 | 0 | 0  | 0 | 126 | 0 | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 71 | 0 | 0  | 0 | 0   | 0 | 55 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 474: detailed difference for col id1=AtMSQTsnp 15 vs col id2=AtMSQTsnp 15

| row id1        | col id1      | call1 | row id2 | col id2      | call2 |
|----------------|--------------|-------|---------|--------------|-------|
| (6930, 1)/KZ-1 | AtMSQTsnp 15 | C     | 43      | AtMSQTsnp 15 | T     |
| (8320, 1)/Kz-1 | AtMSQTsnp 15 | C     | 43      | AtMSQTsnp 15 | T     |

4.24    col id1=AtMSQTsnp 155 vs col id2=AtMSQTsnp 155

Table 475: col id1=AtMSQTsnp 155 vs col id2=AtMSQTsnp 155

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 86 | 0 | 2  | 45 | 0 | 47 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 27 | 0 | 4  | 44 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 41 | 0 | 0  | 0  | 0 | 47 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.25 col id1=AtMSQTsnp 156 vs col id2=AtMSQTsnp 156

Table 476: col id1=AtMSQTsnp 156 vs col id2=AtMSQTsnp 156

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 84 | 1 | 6  | 0 | 36 | 0 | 54 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 26 | 0 | 7  | 0 | 39 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 40 | 1 | 1  | 0 | 0  | 0 | 47 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 477: detailed difference for col id1=AtMSQTsnp 156 vs col id2=AtMSQTsnp 156

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6910, 1)/Ct-1 | AtMSQTsnp 156 | C     | 76      | AtMSQTsnp 156 | T     |

4.26 col id1=AtMSQTsnp 159 vs col id2=AtMSQTsnp 159

Table 478: col id1=AtMSQTsnp 159 vs col id2=AtMSQTsnp 159

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2  | 0 | 1  | 0 | 2  | 0 | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 65 | 0 | 2  | 0 | 87 | 0 | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 83 | 0 | 0  | 0 | 4  | 0 | 87 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 479: detailed difference for col id1=AtMSQTsnp 159 vs col id2=AtMSQTsnp 159

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1   | AtMSQTsnp 159 | C     | 27      | AtMSQTsnp 159 | T     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 159 | T     | 40      | AtMSQTsnp 159 | C     |
| (6932, 1)/Ler-1   | AtMSQTsnp 159 | C     | 55      | AtMSQTsnp 159 | T     |
| (6932, 2)/Ler-1   | AtMSQTsnp 159 | C     | 55      | AtMSQTsnp 159 | T     |
| (6936, 1)/Lz-0    | AtMSQTsnp 159 | C     | 52      | AtMSQTsnp 159 | T     |
| (6943, 1)/NFA-10  | AtMSQTsnp 159 | T     | 36      | AtMSQTsnp 159 | C     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 159 | T     | 40      | AtMSQTsnp 159 | C     |
| (8324, 1)/Ler-1   | AtMSQTsnp 159 | C     | 55      | AtMSQTsnp 159 | T     |
| (8336, 1)/Lz-0    | AtMSQTsnp 159 | C     | 52      | AtMSQTsnp 159 | T     |
| (8345, 1)/NFA-10  | AtMSQTsnp 159 | T     | 36      | AtMSQTsnp 159 | C     |

4.27 col id1=AtMSQTsnp 164 vs col id2=AtMSQTsnp 164

Table 480: col id1=AtMSQTsnp 164 vs col id2=AtMSQTsnp 164

|    |    | - | NA | A  | C  | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|----|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 80 | 0 | 9  | 27 | 60 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |



|    |    |   |   |    |    |   |   |   |   |   |   |   |   |
|----|----|---|---|----|----|---|---|---|---|---|---|---|---|
| A  | 25 | 0 | 2 | 28 | 3  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 45 | 0 | 7 | 0  | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0  | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0  | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 481: detailed difference for col id1=AtMSQTsnp 164 vs col id2=AtMSQTsnp 164

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6916, 1)/Est-1 | AtMSQTsnp 164 | A     | 66      | AtMSQTsnp 164 | C     |
| (6958, 1)/Ra-0  | AtMSQTsnp 164 | A     | 69      | AtMSQTsnp 164 | C     |
| (8214, 1)/Gy-0  | AtMSQTsnp 164 | A     | 68      | AtMSQTsnp 164 | C     |

4.28    col id1=AtMSQTsnp 169 vs col id2=AtMSQTsnp 169

Table 482: col id1=AtMSQTsnp 169 vs col id2=AtMSQTsnp 169

|    |     | - | NA | A | C | G   | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|---|-----|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 0  | 0 | 0 | 4   | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 116 | 0 | 0  | 0 | 0 | 122 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 32  | 0 | 0  | 0 | 0 | 0   | 65 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 483: detailed difference for col id1=AtMSQTsnp 169 vs col id2=AtMSQTsnp 169

| row id1       | col id1       | call1 | row id2 | col id2       | call2 |
|---------------|---------------|-------|---------|---------------|-------|
| (7438, 1)/N13 | AtMSQTsnp 169 | GT    | 58      | AtMSQTsnp 169 | G     |

4.29    col id1=AtMSQTsnp 170 vs col id2=AtMSQTsnp 170

Table 484: col id1=AtMSQTsnp 170 vs col id2=AtMSQTsnp 170

|    |    | - | NA | A  | C  | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|----|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 94 | 0 | 3  | 44 | 45 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 37 | 0 | 2  | 42 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 29 | 0 | 1  | 0  | 46 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.30    col id1=AtMSQTsnp 173 vs col id2=AtMSQTsnp 173

Table 485: col id1=AtMSQTsnp 173 vs col id2=AtMSQTsnp 173

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 10 | 0 | 0  | 2  | 0 | 8  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 80 | 0 | 0  | 88 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 60 | 0 | 3  | 2  | 0 | 90 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 486: detailed difference for col id1=AtMSQTsnp 173 vs col id2=AtMSQTsnp 173

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6938, 1)/Ms-0 | AtMSQTsnp 173 | G     | 92      | AtMSQTsnp 173 | A     |
| (8340, 1)/Ms-0 | AtMSQTsnp 173 | G     | 92      | AtMSQTsnp 173 | A     |

4.31 col id1=AtMSQTsnp 174 vs col id2=AtMSQTsnp 174

Table 487: col id1=AtMSQTsnp 174 vs col id2=AtMSQTsnp 174

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 3  | 0  | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 68 | 0 | 17 | 62 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 79 | 0 | 21 | 0  | 0 | 88 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.32 col id1=AtMSQTsnp 177 vs col id2=AtMSQTsnp 177

Table 488: col id1=AtMSQTsnp 177 vs col id2=AtMSQTsnp 177

|    |     | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|----|---|-----|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 0  | 0  | 0 | 2   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 38  | 0 | 0  | 53 | 0 | 0   | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 110 | 0 | 2  | 1  | 0 | 133 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 489: detailed difference for col id1=AtMSQTsnp 177 vs col id2=AtMSQTsnp 177

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 177 | G     | 27      | AtMSQTsnp 177 | A     |
| (6938, 1)/Ms-0  | AtMSQTsnp 177 | A     | 92      | AtMSQTsnp 177 | AG    |

|                |               |   |    |               |    |
|----------------|---------------|---|----|---------------|----|
| (8340, 1)/Ms-0 | AtMSQTsnp 177 | A | 92 | AtMSQTsnp 177 | AG |
|----------------|---------------|---|----|---------------|----|

#### 4.33    col id1=AtMSQTsnp 18 vs col id2=AtMSQTsnp 18

Table 490: col id1=AtMSQTsnp 18 vs col id2=AtMSQTsnp 18

|    |     | - | NA | A | C   | G  | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|-----|----|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5   | 0 | 1  | 0 | 15  | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 108 | 0 | 9  | 0 | 110 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 37  | 0 | 2  | 0 | 0   | 54 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

#### 4.34    col id1=AtMSQTsnp 184 vs col id2=AtMSQTsnp 184

Table 491: col id1=AtMSQTsnp 184 vs col id2=AtMSQTsnp 184

|    |    | - | NA | A  | C | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 78 | 0 | 16 | 21 | 0 | 0 | 57 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 30 | 0 | 4  | 22 | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 44 | 0 | 19 | 0  | 0 | 0 | 51 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 492: detailed difference for col id1=AtMSQTsnp 184 vs col id2=AtMSQTsnp 184

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 184 | A     | 27      | AtMSQTsnp 184 | T     |

#### 4.35    col id1=AtMSQTsnp 186 vs col id2=AtMSQTsnp 186

Table 493: col id1=AtMSQTsnp 186 vs col id2=AtMSQTsnp 186

|    |    | - | NA | A  | C | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 84 | 0 | 0  | 37 | 0 | 0 | 58 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 22 | 0 | 0  | 42 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 43 | 0 | 0  | 0  | 0 | 0 | 56 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 1  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

4.36 col id1=AtMSQTsnp 187 vs col id2=AtMSQTsnp 187

Table 494: col id1=AtMSQTsnp 187 vs col id2=AtMSQTsnp 187

|    |     | - | NA | A   | C | G | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|-----|---|---|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 0  | 1   | 0 | 0 | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 101 | 0 | 8  | 119 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 51  | 0 | 0  | 1   | 0 | 0 | 57 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 1   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 495: detailed difference for col id1=AtMSQTsnp 187 vs col id2=AtMSQTsnp 187

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 187 | T     | 27      | AtMSQTsnp 187 | A     |

4.37 col id1=AtMSQTsnp 188 vs col id2=AtMSQTsnp 188

Table 496: col id1=AtMSQTsnp 188 vs col id2=AtMSQTsnp 188

|    |     | - | NA | A | C   | G | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|-----|---|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5   | 0 | 0  | 0 | 2   | 0 | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 112 | 0 | 0  | 0 | 124 | 0 | 1  | 0  | 0  | 0  | 0  | 2  | 0  |
| G  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 31  | 0 | 0  | 0 | 0   | 0 | 58 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 2   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 497: detailed difference for col id1=AtMSQTsnp 188 vs col id2=AtMSQTsnp 188

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 188 | C     | 27      | AtMSQTsnp 188 | T     |
| (6977, 1)/Van-0 | AtMSQTsnp 188 | C     | 64      | AtMSQTsnp 188 | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 188 | C     | 64      | AtMSQTsnp 188 | CT    |

4.38 col id1=AtMSQTsnp 189 vs col id2=AtMSQTsnp 189

Table 498: col id1=AtMSQTsnp 189 vs col id2=AtMSQTsnp 189

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 52 | 0 | 1  | 43 | 0 | 49 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 39 | 0 | 1  | 46 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 59 | 0 | 0  | 0  | 0 | 53 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

#### 4.39    col id1=AtMSQTsnp 191 vs col id2=AtMSQTsnp 191

Table 499: col id1=AtMSQTsnp 191 vs col id2=AtMSQTsnp 191

|    |    | - | NA | A   | C  | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|-----|----|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 3  | 0 | 0  | 2   | 1  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 85 | 0 | 2  | 115 | 1  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 59 | 0 | 0  | 0   | 72 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 3  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 500: detailed difference for col id1=AtMSQTsnp 191 vs col id2=AtMSQTsnp 191

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 191 | A     | 27      | AtMSQTsnp 191 | C     |

#### 4.40    col id1=AtMSQTsnp 194 vs col id2=AtMSQTsnp 194

Table 501: col id1=AtMSQTsnp 194 vs col id2=AtMSQTsnp 194

|    |    | - | NA | A  | C | G | T   | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|----|---|---|-----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 5  | 0 | 0  | 3  | 0 | 0 | 2   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 49 | 0 | 0  | 84 | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 95 | 0 | 0  | 1  | 0 | 0 | 101 | 0  | 0  | 2  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 1  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 502: detailed difference for col id1=AtMSQTsnp 194 vs col id2=AtMSQTsnp 194

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 194 | T     | 27      | AtMSQTsnp 194 | A     |
| (6977, 1)/Van-0 | AtMSQTsnp 194 | T     | 64      | AtMSQTsnp 194 | AT    |
| (8400, 1)/Van-0 | AtMSQTsnp 194 | T     | 64      | AtMSQTsnp 194 | AT    |

#### 4.41    col id1=AtMSQTsnp 197 vs col id2=AtMSQTsnp 197

Table 503: col id1=AtMSQTsnp 197 vs col id2=AtMSQTsnp 197

|    |     | - | NA | A   | C | G | T | AC | AG | AT | CG | CT | GT |  |
|----|-----|---|----|-----|---|---|---|----|----|----|----|----|----|--|
|    | 0   | 0 | 0  | 0   | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0   | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 2   | 0 | 0  | 3   | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 142 | 0 | 8  | 120 | 0 | 0 | 0 | 0  | 2  | 0  | 0  | 0  | 0  |  |

|    |    |   |   |   |   |    |   |   |   |   |   |   |   |
|----|----|---|---|---|---|----|---|---|---|---|---|---|---|
| C  | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 16 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 504: detailed difference for col id1=AtMSQTsnp 197 vs col id2=AtMSQTsnp 197

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 197 | A     | 64      | AtMSQTsnp 197 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 197 | A     | 64      | AtMSQTsnp 197 | AG    |

4.42    col id1=AtMSQTsnp 198 vs col id2=AtMSQTsnp 198

Table 505: col id1=AtMSQTsnp 198 vs col id2=AtMSQTsnp 198

|    |     |   |    |   |    |   |     |    |    |    |    |    |    |
|----|-----|---|----|---|----|---|-----|----|----|----|----|----|----|
|    |     |   |    |   |    |   |     |    |    |    |    |    |    |
|    |     | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |
|    | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1   | 0 | 0  | 0 | 1  | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 33  | 0 | 0  | 0 | 47 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 115 | 0 | 0  | 0 | 0  | 0 | 144 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

4.43    col id1=AtMSQTsnp 2 vs col id2=AtMSQTsnp 2

Table 506: col id1=AtMSQTsnp 2 vs col id2=AtMSQTsnp 2

|    |    |   |    |    |   |    |   |    |    |    |    |    |    |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    |    |   |    |    |   |    |   |    |    |    |    |    |    |
|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 7  | 0 | 0  | 4  | 0 | 10 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 59 | 0 | 0  | 95 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 84 | 0 | 0  | 1  | 0 | 83 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 507: detailed difference for col id1=AtMSQTsnp 2 vs col id2=AtMSQTsnp 2

| row id1         | col id1     | call1 | row id2 | col id2     | call2 |
|-----------------|-------------|-------|---------|-------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 2 | G     | 27      | AtMSQTsnp 2 | A     |

4.44    col id1=AtMSQTsnp 203 vs col id2=AtMSQTsnp 203

Table 508: col id1=AtMSQTsnp 203 vs col id2=AtMSQTsnp 203

|    |    | - | NA | A  | C | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 4  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 83 | 0 | 8  | 93 | 0 | 0 | 0  | 0  | 0  | 2  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 64 | 0 | 4  | 0  | 0 | 0 | 80 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 1  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 509: detailed difference for col id1=AtMSQTsnp 203 vs col id2=AtMSQTsnp 203

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 203 | A     | 64      | AtMSQTsnp 203 | AT    |
| (8400, 1)/Van-0 | AtMSQTsnp 203 | A     | 64      | AtMSQTsnp 203 | AT    |

4.45 col id1=AtMSQTsnp 205 vs col id2=AtMSQTsnp 205

Table 510: col id1=AtMSQTsnp 205 vs col id2=AtMSQTsnp 205

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 85 | 0 | 3  | 0 | 67 | 0 | 25 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 49 | 0 | 1  | 0 | 69 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 16 | 0 | 2  | 0 | 0  | 0 | 26 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

4.46 col id1=AtMSQTsnp 21 vs col id2=AtMSQTsnp 21

Table 511: col id1=AtMSQTsnp 21 vs col id2=AtMSQTsnp 21

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 9  | 0 | 6  | 0 | 11 | 0 | 9  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 80 | 0 | 2  | 0 | 98 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 59 | 0 | 3  | 0 | 1  | 0 | 63 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 2  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 512: detailed difference for col id1=AtMSQTsnp 21 vs col id2=AtMSQTsnp 21

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 21 | T     | 27      | AtMSQTsnp 21 | C     |

4.47    col id1=AtMSQTsnp 214 vs col id2=AtMSQTsnp 214

Table 513: col id1=AtMSQTsnp 214 vs col id2=AtMSQTsnp 214

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 21 | 0 | 0  | 17 | 0 | 34 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 63 | 0 | 0  | 63 | 0 | 0  | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 65 | 0 | 0  | 0  | 0 | 77 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 514: detailed difference for col id1=AtMSQTsnp 214 vs col id2=AtMSQTsnp 214

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 214 | A     | 64      | AtMSQTsnp 214 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 214 | A     | 64      | AtMSQTsnp 214 | AG    |

4.48    col id1=AtMSQTsnp 22 vs col id2=AtMSQTsnp 22

Table 515: col id1=AtMSQTsnp 22 vs col id2=AtMSQTsnp 22

|    |    | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|-----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 2  | 0 | 5   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 65 | 0 | 0  | 65 | 0 | 1   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 81 | 0 | 0  | 0  | 0 | 118 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 516: detailed difference for col id1=AtMSQTsnp 22 vs col id2=AtMSQTsnp 22

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 22 | A     | 27      | AtMSQTsnp 22 | G     |

4.49    col id1=AtMSQTsnp 220 vs col id2=AtMSQTsnp 220

Table 517: col id1=AtMSQTsnp 220 vs col id2=AtMSQTsnp 220

|    |     | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|----|---|-----|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 2  | 1  | 0 | 4   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 35  | 0 | 3  | 66 | 0 | 3   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 117 | 0 | 3  | 1  | 0 | 105 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 1  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |



|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 518: detailed difference for col id1=AtMSQTsnp 220 vs col id2=AtMSQTsnp 220

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 220 | A     | 27      | AtMSQTsnp 220 | G     |
| (6938, 1)/Ms-0  | AtMSQTsnp 220 | G     | 92      | AtMSQTsnp 220 | A     |
| (6977, 1)/Van-0 | AtMSQTsnp 220 | A     | 64      | AtMSQTsnp 220 | G     |
| (8400, 1)/Van-0 | AtMSQTsnp 220 | A     | 64      | AtMSQTsnp 220 | G     |

#### 4.50 col id1=AtMSQTsnp 222 vs col id2=AtMSQTsnp 222

Table 519: col id1=AtMSQTsnp 222 vs col id2=AtMSQTsnp 222

|    |    | - | NA | A | C | G  | T   | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|----|-----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 0 | 0 | 5  | 5   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 64 | 0 | 0  | 0 | 0 | 82 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 80 | 0 | 0  | 0 | 0 | 1  | 100 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

Table 520: detailed difference for col id1=AtMSQTsnp 222 vs col id2=AtMSQTsnp 222

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6938, 1)/Ms-0 | AtMSQTsnp 222 | T     | 92      | AtMSQTsnp 222 | G     |

#### 4.51 col id1=AtMSQTsnp 223 vs col id2=AtMSQTsnp 223

Table 521: col id1=AtMSQTsnp 223 vs col id2=AtMSQTsnp 223

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 6  | 0 | 0  | 5  | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 61 | 0 | 0  | 81 | 0 | 4  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 83 | 0 | 0  | 2  | 0 | 97 | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 522: detailed difference for col id1=AtMSQTsnp 223 vs col id2=AtMSQTsnp 223

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1   | AtMSQTsnp 223 | A     | 27      | AtMSQTsnp 223 | G     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 223 | A     | 40      | AtMSQTsnp 223 | G     |
| (6908, 1)/CIBC-5  | AtMSQTsnp 223 | G     | 39      | AtMSQTsnp 223 | A     |
| (8215, 1)/Fei-0   | AtMSQTsnp 223 | G     | 82      | AtMSQTsnp 223 | AG    |

|                   |               |   |    |               |    |
|-------------------|---------------|---|----|---------------|----|
| (8276, 1)/CIBC-17 | AtMSQTsnp 223 | A | 40 | AtMSQTsnp 223 | G  |
| (8277, 1)/CIBC-5  | AtMSQTsnp 223 | G | 39 | AtMSQTsnp 223 | A  |
| (8294, 1)/Fei-0   | AtMSQTsnp 223 | G | 82 | AtMSQTsnp 223 | AG |
| (8364, 1)/Ra-0    | AtMSQTsnp 223 | A | 69 | AtMSQTsnp 223 | G  |

4.52    col id1=AtMSQTsnp 231 vs col id2=AtMSQTsnp 231

Table 523: col id1=AtMSQTsnp 231 vs col id2=AtMSQTsnp 231

|    |    | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|-----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 22 | 0 | 0  | 28 | 0 | 6   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 33 | 0 | 0  | 44 | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 95 | 0 | 6  | 0  | 0 | 109 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.53    col id1=AtMSQTsnp 232 vs col id2=AtMSQTsnp 232

Table 524: col id1=AtMSQTsnp 232 vs col id2=AtMSQTsnp 232

|    |    | - | NA | A  | C  | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|----|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 11 | 0 | 0  | 40 | 3  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 70 | 0 | 0  | 66 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 52 | 0 | 0  | 0  | 72 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 17 | 0 | 0  | 12 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 525: detailed difference for col id1=AtMSQTsnp 232 vs col id2=AtMSQTsnp 232

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6915, 1)/Ei-2    | AtMSQTsnp 232 | AC    | 53      | AtMSQTsnp 232 | A     |
| (6916, 1)/Est-1   | AtMSQTsnp 232 | AC    | 66      | AtMSQTsnp 232 | A     |
| (6942, 1)/Nd-1    | AtMSQTsnp 232 | AC    | 56      | AtMSQTsnp 232 | A     |
| (6943, 1)/NFA-10  | AtMSQTsnp 232 | AC    | 36      | AtMSQTsnp 232 | A     |
| (6946, 1)/Oy-0    | AtMSQTsnp 232 | AC    | 95      | AtMSQTsnp 232 | A     |
| (6970, 1)/Ts-1    | AtMSQTsnp 232 | AC    | 84      | AtMSQTsnp 232 | A     |
| (6972, 1)/Tsu-1   | AtMSQTsnp 232 | AC    | 78      | AtMSQTsnp 232 | A     |
| (6979, 1)/Wei-0   | AtMSQTsnp 232 | AC    | 59      | AtMSQTsnp 232 | A     |
| (6984, 1)/Zdr-1   | AtMSQTsnp 232 | AC    | 25      | AtMSQTsnp 232 | A     |
| (7524, 1)/Rmx-A02 | AtMSQTsnp 232 | AC    | 5       | AtMSQTsnp 232 | A     |
| (7526, 1)/Pna-10  | AtMSQTsnp 232 | AC    | 8       | AtMSQTsnp 232 | A     |
| (8215, 1)/Fei-0   | AtMSQTsnp 232 | AC    | 82      | AtMSQTsnp 232 | A     |

4.54    col id1=AtMSQTsnp 235 vs col id2=AtMSQTsnp 235

Table 526: col id1=AtMSQTsnp 235 vs col id2=AtMSQTsnp 235

|   |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|---|---|---|----|---|---|---|---|----|----|----|----|----|----|
|   | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| - | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |   |    |   |    |   |   |   |   |   |   |   |   |
|----|----|---|---|----|---|----|---|---|---|---|---|---|---|---|
| NA | 82 | 0 | 0 | 58 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 41 | 0 | 0 | 66 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 27 | 0 | 0 | 0  | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

4.55    col id1=AtMSQTsnp 237 vs col id2=AtMSQTsnp 237

Table 527: col id1=AtMSQTsnp 237 vs col id2=AtMSQTsnp 237

|    |     | - | NA | A | C   | G | T  | AC | AG | AT | CG | CT | GT |  |
|----|-----|---|----|---|-----|---|----|----|----|----|----|----|----|--|
|    | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 28  | 0 | 1  | 0 | 23  | 0 | 28 | 0  | 0  | 0  | 0  | 2  | 0  |  |
| A  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 101 | 0 | 4  | 0 | 110 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 20  | 0 | 0  | 0 | 0   | 0 | 25 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 1   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.56    col id1=AtMSQTsnp 242 vs col id2=AtMSQTsnp 242

Table 528: col id1=AtMSQTsnp 242 vs col id2=AtMSQTsnp 242

|    |    | - | NA | A | C   | G | T  | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|-----|---|----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 3  | 0 | 1  | 0 | 2   | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 87 | 0 | 5  | 0 | 123 | 0 | 0  | 0  | 0  | 0  | 0  | 2  | 0  |  |
| G  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 60 | 0 | 0  | 0 | 0   | 0 | 59 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 529: detailed difference for col id1=AtMSQTsnp 242 vs col id2=AtMSQTsnp 242

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 242 | C     | 64      | AtMSQTsnp 242 | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 242 | C     | 64      | AtMSQTsnp 242 | CT    |

4.57    col id1=AtMSQTsnp 244 vs col id2=AtMSQTsnp 244

Table 530: col id1=AtMSQTsnp 244 vs col id2=AtMSQTsnp 244

|    |    | - | NA | A   | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|-----|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0   | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0   | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 7   | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 92 | 0 | 4  | 111 | 0 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0   | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |   |   |   |    |   |   |   |   |   |   |   |
|----|----|---|---|---|---|----|---|---|---|---|---|---|---|
| G  | 58 | 0 | 6 | 2 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 531: detailed difference for col id1=AtMSQTsnp 244 vs col id2=AtMSQTsnp 244

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6907, 1)/CIBC-17 | AtMSQTsnp 244 | A     | 40      | AtMSQTsnp 244 | G     |
| (6908, 1)/CIBC-5  | AtMSQTsnp 244 | G     | 39      | AtMSQTsnp 244 | A     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 244 | A     | 40      | AtMSQTsnp 244 | G     |
| (8277, 1)/CIBC-5  | AtMSQTsnp 244 | G     | 39      | AtMSQTsnp 244 | A     |

4.58    col id1=AtMSQTsnp 249 vs col id2=AtMSQTsnp 249

Table 532: col id1=AtMSQTsnp 249 vs col id2=AtMSQTsnp 249

|    |     | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|-----|---|----|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4   | 0 | 0  | 2   | 0 | 3  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 101 | 0 | 0  | 133 | 0 | 0  | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 45  | 0 | 0  | 1   | 0 | 52 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 533: detailed difference for col id1=AtMSQTsnp 249 vs col id2=AtMSQTsnp 249

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 249 | G     | 27      | AtMSQTsnp 249 | A     |
| (6938, 1)/Ms-0  | AtMSQTsnp 249 | A     | 92      | AtMSQTsnp 249 | AG    |
| (8340, 1)/Ms-0  | AtMSQTsnp 249 | A     | 92      | AtMSQTsnp 249 | AG    |

4.59    col id1=AtMSQTsnp 254 vs col id2=AtMSQTsnp 254

Table 534: col id1=AtMSQTsnp 254 vs col id2=AtMSQTsnp 254

|    |    | -  | NA | A  | C   | G | T | AC | AG | AT | CG | CT | GT |
|----|----|----|----|----|-----|---|---|----|----|----|----|----|----|
|    | 0  | 0  | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0  | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 7  | 11 | 0  | 4  | 4   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 49 | 0  | 0  | 65 | 1   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 94 | 0  | 2  | 0  | 106 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0  | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0  | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0  | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0  | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0  | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0  | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0  | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0  | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 535: detailed difference for col id1=AtMSQTsnp 254 vs col id2=AtMSQTsnp 254

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 254 | A     | 27      | AtMSQTsnp 254 | C     |

4.60 col id1=AtMSQTsnp 260 vs col id2=AtMSQTsnp 260

Table 536: col id1=AtMSQTsnp 260 vs col id2=AtMSQTsnp 260

|    |    | - | NA | A  | C  | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|----|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 10 | 0 | 0  | 3  | 1  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 53 | 0 | 6  | 61 | 2  | 0 | 0 | 2  | 0  | 0  | 0  | 0  | 0  |
| C  | 99 | 0 | 6  | 0  | 98 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 2  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 537: detailed difference for col id1=AtMSQTsnp 260 vs col id2=AtMSQTsnp 260

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 260 | A     | 64      | AtMSQTsnp 260 | AC    |
| (6984, 1)/Zdr-1 | AtMSQTsnp 260 | A     | 25      | AtMSQTsnp 260 | C     |
| (8400, 1)/Van-0 | AtMSQTsnp 260 | A     | 64      | AtMSQTsnp 260 | AC    |
| (8409, 1)/Zdr-1 | AtMSQTsnp 260 | A     | 25      | AtMSQTsnp 260 | C     |

4.61 col id1=AtMSQTsnp 263 vs col id2=AtMSQTsnp 263

Table 538: col id1=AtMSQTsnp 263 vs col id2=AtMSQTsnp 263

|    |     | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|----|---|-----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 0  | 0 | 2  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 40  | 0 | 4  | 0 | 61 | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 114 | 0 | 2  | 0 | 0  | 0 | 117 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

Table 539: detailed difference for col id1=AtMSQTsnp 263 vs col id2=AtMSQTsnp 263

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 263 | C     | 27      | AtMSQTsnp 263 | T     |

4.62 col id1=AtMSQTsnp 266 vs col id2=AtMSQTsnp 266

Table 540: col id1=AtMSQTsnp 266 vs col id2=AtMSQTsnp 266

|  |  | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|--|--|---|----|---|---|---|---|----|----|----|----|----|----|

|    |    |   |   |   |   |    |     |   |   |   |   |   |   |
|----|----|---|---|---|---|----|-----|---|---|---|---|---|---|
|    | 0  | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| -  | 0  | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 2  | 0 | 0 | 0 | 0 | 0  | 1   | 1 | 0 | 0 | 0 | 0 | 1 |
| A  | 0  | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0  | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 62 | 0 | 0 | 0 | 0 | 57 | 0   | 0 | 0 | 0 | 0 | 0 | 1 |
| T  | 86 | 0 | 0 | 0 | 0 | 0  | 130 | 0 | 0 | 0 | 0 | 0 | 2 |
| AC | 0  | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0 | 0 | 0 | 0 |

Table 541: detailed difference for col id1=AtMSQTsnp 266 vs col id2=AtMSQTsnp 266

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6960, 1)/REN-11 | AtMSQTsnp 266 | G     | 48      | AtMSQTsnp 266 | GT    |
| (6977, 1)/Van-0  | AtMSQTsnp 266 | T     | 64      | AtMSQTsnp 266 | GT    |
| (8400, 1)/Van-0  | AtMSQTsnp 266 | T     | 64      | AtMSQTsnp 266 | GT    |

4.63 col id1=AtMSQTsnp 267 vs col id2=AtMSQTsnp 267

Table 542: col id1=AtMSQTsnp 267 vs col id2=AtMSQTsnp 267

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 68 | 0 | 2  | 0 | 17 | 0 | 26 | 0  | 0  | 0  | 0  | 1  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 55 | 0 | 0  | 0 | 40 | 0 | 0  | 0  | 0  | 0  | 0  | 1  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 54 | 0 | 1  | 0 | 0  | 0 | 35 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 27 | 0 | 1  | 0 | 15 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 543: detailed difference for col id1=AtMSQTsnp 267 vs col id2=AtMSQTsnp 267

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6897, 1)/Ag-0    | AtMSQTsnp 267 | CT    | 67      | AtMSQTsnp 267 | C     |
| (6904, 1)/Br-0    | AtMSQTsnp 267 | CT    | 65      | AtMSQTsnp 267 | C     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 267 | CT    | 40      | AtMSQTsnp 267 | C     |
| (6920, 1)/GOT-22  | AtMSQTsnp 267 | CT    | 46      | AtMSQTsnp 267 | C     |
| (6921, 1)/GOT-7   | AtMSQTsnp 267 | CT    | 45      | AtMSQTsnp 267 | C     |
| (6959, 1)/REN-1   | AtMSQTsnp 267 | CT    | 47      | AtMSQTsnp 267 | C     |
| (6960, 1)/REN-11  | AtMSQTsnp 267 | CT    | 48      | AtMSQTsnp 267 | C     |
| (6961, 1)/Se-0    | AtMSQTsnp 267 | CT    | 83      | AtMSQTsnp 267 | C     |
| (6971, 1)/Ts-5    | AtMSQTsnp 267 | CT    | 85      | AtMSQTsnp 267 | C     |
| (6976, 1)/Uod-7   | AtMSQTsnp 267 | CT    | 50      | AtMSQTsnp 267 | C     |
| (6980, 1)/Ws-0    | AtMSQTsnp 267 | CT    | 60      | AtMSQTsnp 267 | C     |
| (6985, 1)/Zdr-6   | AtMSQTsnp 267 | CT    | 26      | AtMSQTsnp 267 | C     |
| (7519, 1)/        | AtMSQTsnp 267 | CT    | 22      | AtMSQTsnp 267 | C     |
| (7523, 1)/Pna-17  | AtMSQTsnp 267 | CT    | 7       | AtMSQTsnp 267 | C     |
| (7526, 1)/Pna-10  | AtMSQTsnp 267 | CT    | 8       | AtMSQTsnp 267 | C     |
| (8400, 1)/Van-0   | AtMSQTsnp 267 | C     | 64      | AtMSQTsnp 267 | CT    |

4.64 col id1=AtMSQTsnp 27 vs col id2=AtMSQTsnp 27

Table 544: col id1=AtMSQTsnp 27 vs col id2=AtMSQTsnp 27

|  |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|--|---|---|----|---|---|---|---|----|----|----|----|----|----|
|  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |   |    |   |    |   |   |   |   |   |   |   |   |
|----|----|---|---|----|---|----|---|---|---|---|---|---|---|---|
| -  | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 86 | 0 | 1 | 56 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 42 | 0 | 1 | 53 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 24 | 0 | 0 | 0  | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

4.65    col id1=AtMSQTsnp 274 vs col id2=AtMSQTsnp 274

Table 545: col id1=AtMSQTsnp 274 vs col id2=AtMSQTsnp 274

|    |    | - | NA | A | C | G   | T   | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|-----|-----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 4  | 0 | 0  | 0 | 0 | 7   | 5   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0 | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0  | 0 | 0  | 0 | 0 | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 23 | 0 | 6  | 0 | 0 | 123 | 4   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 24 | 0 | 1  | 0 | 0 | 3   | 143 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 546: detailed difference for col id1=AtMSQTsnp 274 vs col id2=AtMSQTsnp 274

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6088, 1)/Stu1-1  | AtMSQTsnp 274 | T     | 363     | AtMSQTsnp 274 | G     |
| (8234, 1)/Gul1-2  | AtMSQTsnp 274 | T     | 356     | AtMSQTsnp 274 | G     |
| (8244, 1)/PHW-34  | AtMSQTsnp 274 | G     | 304     | AtMSQTsnp 274 | T     |
| (8246, 1)/NC-6    | AtMSQTsnp 274 | G     | 294     | AtMSQTsnp 274 | T     |
| (8284, 1)/DraII-1 | AtMSQTsnp 274 | G     | 381     | AtMSQTsnp 274 | T     |
| (8356, 1)/Pi-0    | AtMSQTsnp 274 | G     | 336     | AtMSQTsnp 274 | T     |
| (8380, 1)/Sf-1    | AtMSQTsnp 274 | T     | 300     | AtMSQTsnp 274 | G     |

4.66    col id1=AtMSQTsnp 278 vs col id2=AtMSQTsnp 278

Table 547: col id1=AtMSQTsnp 278 vs col id2=AtMSQTsnp 278

|    |    | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|----|---|-----|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 4  | 0 | 1  | 11 | 0 | 5   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 18 | 0 | 10 | 71 | 0 | 2   | 0 | 0  | 1  | 0  | 0  | 0  | 0  |  |
| C  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 29 | 0 | 20 | 3  | 0 | 168 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 548: detailed difference for col id1=AtMSQTsnp 278 vs col id2=AtMSQTsnp 278

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 278 | A     | 27      | AtMSQTsnp 278 | G     |
| (6008, 2)/Duk   | AtMSQTsnp 278 | G     | 378     | AtMSQTsnp 278 | A     |

|                   |               |   |     |               |    |
|-------------------|---------------|---|-----|---------------|----|
| (6042, 2)/Lom1-1  | AtMSQTsnp 278 | G | 351 | AtMSQTsnp 278 | A  |
| (8246, 1)/NC-6    | AtMSQTsnp 278 | A | 294 | AtMSQTsnp 278 | G  |
| (8284, 1)/DraII-1 | AtMSQTsnp 278 | A | 381 | AtMSQTsnp 278 | AG |
| (8380, 1)/Sf-1    | AtMSQTsnp 278 | G | 300 | AtMSQTsnp 278 | A  |

4.67    col id1=AtMSQTsnp 279 vs col id2=AtMSQTsnp 279

Table 549: col id1=AtMSQTsnp 279 vs col id2=AtMSQTsnp 279

|    |    | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|-----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1  | 0 | 1  | 0 | 0  | 0 | 3   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 18 | 0 | 12 | 0 | 83 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 32 | 0 | 18 | 0 | 1  | 0 | 173 | 0  | 0  | 0  | 0  | 1  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

Table 550: detailed difference for col id1=AtMSQTsnp 279 vs col id2=AtMSQTsnp 279

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (8284, 1)/DraII-1 | AtMSQTsnp 279 | T     | 381     | AtMSQTsnp 279 | CT    |
| (8356, 1)/Pi-0    | AtMSQTsnp 279 | T     | 336     | AtMSQTsnp 279 | C     |

4.68    col id1=AtMSQTsnp 281 vs col id2=AtMSQTsnp 281

Table 551: col id1=AtMSQTsnp 281 vs col id2=AtMSQTsnp 281

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 2  | 0 | 3  | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 72 | 0 | 6  | 0 | 89 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 73 | 0 | 7  | 0 | 2  | 0 | 82 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0  | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 552: detailed difference for col id1=AtMSQTsnp 281 vs col id2=AtMSQTsnp 281

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6959, 1)/REN-1 | AtMSQTsnp 281 | CT    | 47      | AtMSQTsnp 281 | T     |
| (6977, 1)/Van-0 | AtMSQTsnp 281 | T     | 64      | AtMSQTsnp 281 | C     |
| (8400, 1)/Van-0 | AtMSQTsnp 281 | T     | 64      | AtMSQTsnp 281 | C     |

4.69    col id1=AtMSQTsnp 282 vs col id2=AtMSQTsnp 282

Table 553: col id1=AtMSQTsnp 282 vs col id2=AtMSQTsnp 282

|  |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|--|---|---|----|---|---|---|---|----|----|----|----|----|----|
|  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |



|    |    |   |   |    |   |   |     |   |   |   |   |   |   |
|----|----|---|---|----|---|---|-----|---|---|---|---|---|---|
| -  | 0  | 0 | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 6  | 0 | 0 | 0  | 0 | 0 | 6   | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 59 | 0 | 0 | 57 | 0 | 0 | 0   | 0 | 0 | 1 | 0 | 0 | 0 |
| C  | 0  | 0 | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0  | 0 | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 88 | 0 | 4 | 0  | 0 | 0 | 121 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 1 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |

Table 554: detailed difference for col id1=AtMSQTsnp 282 vs col id2=AtMSQTsnp 282

| row id1      | col id1       | call1 | row id2 | col id2       | call2 |
|--------------|---------------|-------|---------|---------------|-------|
| (6918, 1)/F4 | AtMSQTsnp 282 | A     | 14      | AtMSQTsnp 282 | AT    |

4.70    col id1=AtMSQTsnp 285 vs col id2=AtMSQTsnp 285

Table 555: col id1=AtMSQTsnp 285 vs col id2=AtMSQTsnp 285

|    |     | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|----|---|-----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 0  | 0 | 1  | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 36  | 0 | 0  | 0 | 62 | 0 | 0   | 0  | 0  | 0  | 0  | 1  | 0  |
| G  | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 117 | 0 | 0  | 0 | 0  | 0 | 119 | 0  | 0  | 0  | 0  | 2  | 0  |
| AC | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 1  | 0  |
| GT | 0   | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

Table 556: detailed difference for col id1=AtMSQTsnp 285 vs col id2=AtMSQTsnp 285

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6960, 1)/REN-11 | AtMSQTsnp 285 | C     | 48      | AtMSQTsnp 285 | CT    |
| (6977, 1)/Van-0  | AtMSQTsnp 285 | T     | 64      | AtMSQTsnp 285 | CT    |
| (8400, 1)/Van-0  | AtMSQTsnp 285 | T     | 64      | AtMSQTsnp 285 | CT    |

4.71    col id1=AtMSQTsnp 286 vs col id2=AtMSQTsnp 286

Table 557: col id1=AtMSQTsnp 286 vs col id2=AtMSQTsnp 286

|    |    | - | NA | A | C  | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 84 | 0 | 1  | 0 | 54 | 40 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 35 | 0 | 1  | 0 | 59 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 31 | 0 | 0  | 0 | 1  | 37 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 558: detailed difference for col id1=AtMSQTsnp 286 vs col id2=AtMSQTsnp 286

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 286 | G     | 27      | AtMSQTsnp 286 | C     |

4.72

col id1=AtMSQTsnp 288 vs col id2=AtMSQTsnp 288

Table 559: col id1=AtMSQTsnp 288 vs col id2=AtMSQTsnp 288

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 1  | 4  | 0 | 3  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 71 | 0 | 3  | 84 | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 74 | 0 | 7  | 0  | 0 | 90 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 560: detailed difference for col id1=AtMSQTsnp 288 vs col id2=AtMSQTsnp 288

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 288 | A     | 27      | AtMSQTsnp 288 | G     |

4.73

col id1=AtMSQTsnp 29 vs col id2=AtMSQTsnp 29

Table 561: col id1=AtMSQTsnp 29 vs col id2=AtMSQTsnp 29

|    |    | - | NA | A  | C | G | T   | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|---|-----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 3  | 0 | 0 | 4   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 46 | 0 | 0  | 61 | 0 | 0 | 0   | 0  | 0  | 2  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 99 | 0 | 0  | 0  | 0 | 0 | 123 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

Table 562: detailed difference for col id1=AtMSQTsnp 29 vs col id2=AtMSQTsnp 29

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 29 | A     | 64      | AtMSQTsnp 29 | AT    |
| (8400, 1)/Van-0 | AtMSQTsnp 29 | A     | 64      | AtMSQTsnp 29 | AT    |

4.74

col id1=AtMSQTsnp 292 vs col id2=AtMSQTsnp 292

Table 563: col id1=AtMSQTsnp 292 vs col id2=AtMSQTsnp 292

|   |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|---|---|---|----|---|---|---|---|----|----|----|----|----|----|
|   | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| - | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |   |   |    |   |     |   |   |   |   |   |   |
|----|----|---|---|---|----|---|-----|---|---|---|---|---|---|
| NA | 6  | 0 | 1 | 0 | 2  | 0 | 4   | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 45 | 0 | 4 | 0 | 65 | 0 | 2   | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 98 | 0 | 4 | 0 | 0  | 0 | 111 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 1  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |

Table 564: detailed difference for col id1=AtMSQTsnp 292 vs col id2=AtMSQTsnp 292

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6910, 1)/Ct-1 | AtMSQTsnp 292 | C     | 76      | AtMSQTsnp 292 | T     |
| (8280, 1)/Ct-1 | AtMSQTsnp 292 | C     | 76      | AtMSQTsnp 292 | T     |

4.75    col id1=AtMSQTsnp 294 vs col id2=AtMSQTsnp 294

Table 565: col id1=AtMSQTsnp 294 vs col id2=AtMSQTsnp 294

|    |    | - | NA | A | C | G   | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|-----|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 7  | 0 | 0  | 0 | 0 | 4   | 9  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 95 | 0 | 0  | 0 | 0 | 108 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 48 | 0 | 0  | 0 | 0 | 0   | 71 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 566: detailed difference for col id1=AtMSQTsnp 294 vs col id2=AtMSQTsnp 294

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 294 | G     | 27      | AtMSQTsnp 294 | T     |

4.76    col id1=AtMSQTsnp 30 vs col id2=AtMSQTsnp 30

Table 567: col id1=AtMSQTsnp 30 vs col id2=AtMSQTsnp 30

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 84 | 0 | 14 | 0 | 52 | 0 | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 31 | 0 | 6  | 0 | 54 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 35 | 0 | 6  | 0 | 1  | 0 | 30 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 568: detailed difference for col id1=AtMSQTsnp 30 vs col id2=AtMSQTsnp 30

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 30 | T     | 27      | AtMSQTsnp 30 | C     |

4.77    col id1=AtMSQTsnp 300 vs col id2=AtMSQTsnp 300

Table 569: col id1=AtMSQTsnp 300 vs col id2=AtMSQTsnp 300

|    |    | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|-----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2  | 0 | 0  | 2   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 95 | 0 | 0  | 102 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 53 | 0 | 0  | 1   | 0 | 88 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 570: detailed difference for col id1=AtMSQTsnp 300 vs col id2=AtMSQTsnp 300

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 300 | G     | 27      | AtMSQTsnp 300 | A     |

4.78    col id1=AtMSQTsnp 304 vs col id2=AtMSQTsnp 304

Table 571: col id1=AtMSQTsnp 304 vs col id2=AtMSQTsnp 304

|    |     | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4   | 0 | 1  | 0 | 9  | 0 | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 47  | 0 | 10 | 0 | 58 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 100 | 0 | 10 | 0 | 2  | 0 | 97 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1   | 0 | 1  | 0 | 0  | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 572: detailed difference for col id1=AtMSQTsnp 304 vs col id2=AtMSQTsnp 304

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6908, 1)/CIBC-5 | AtMSQTsnp 304 | T     | 39      | AtMSQTsnp 304 | C     |
| (6924, 1)/HR-5   | AtMSQTsnp 304 | CT    | 33      | AtMSQTsnp 304 | T     |
| (8277, 1)/CIBC-5 | AtMSQTsnp 304 | T     | 39      | AtMSQTsnp 304 | C     |

4.79    col id1=AtMSQTsnp 306 vs col id2=AtMSQTsnp 306

Table 573: col id1=AtMSQTsnp 306 vs col id2=AtMSQTsnp 306

|    |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|---|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 7 | 0 | 3  | 0 | 3 | 3 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |    |   |    |    |   |   |   |   |   |   |   |   |
|----|----|---|----|---|----|----|---|---|---|---|---|---|---|---|
| C  | 88 | 0 | 29 | 0 | 75 | 2  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 59 | 0 | 16 | 0 | 0  | 55 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| T  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 1  | 0 | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 574: detailed difference for col id1=AtMSQTsnp 306 vs col id2=AtMSQTsnp 306

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6908, 1)/CIBC-5 | AtMSQTsnp 306 | C     | 39      | AtMSQTsnp 306 | G     |
| (6920, 1)/GOT-22 | AtMSQTsnp 306 | G     | 46      | AtMSQTsnp 306 | CG    |
| (8277, 1)/CIBC-5 | AtMSQTsnp 306 | C     | 39      | AtMSQTsnp 306 | G     |
| (8298, 1)/Got-22 | AtMSQTsnp 306 | G     | 46      | AtMSQTsnp 306 | CG    |

4.80 col id1=AtMSQTsnp 307 vs col id2=AtMSQTsnp 307

Table 575: col id1=AtMSQTsnp 307 vs col id2=AtMSQTsnp 307

|    |    | - | NA | A  | C | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 1  | 0 | 0 | 4  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 67 | 0 | 0  | 76 | 0 | 0 | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 88 | 0 | 0  | 2  | 0 | 0 | 97 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 2  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 576: detailed difference for col id1=AtMSQTsnp 307 vs col id2=AtMSQTsnp 307

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6907, 1)/CIBC-17 | AtMSQTsnp 307 | T     | 40      | AtMSQTsnp 307 | A     |
| (6908, 1)/CIBC-5  | AtMSQTsnp 307 | A     | 39      | AtMSQTsnp 307 | T     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 307 | T     | 40      | AtMSQTsnp 307 | A     |
| (8277, 1)/CIBC-5  | AtMSQTsnp 307 | A     | 39      | AtMSQTsnp 307 | T     |
| (8293, 1)/F4      | AtMSQTsnp 307 | A     | 14      | AtMSQTsnp 307 | T     |

4.81 col id1=AtMSQTsnp 31 vs col id2=AtMSQTsnp 31

Table 577: col id1=AtMSQTsnp 31 vs col id2=AtMSQTsnp 31

|    |    | - | NA | A | C | G   | T  | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|-----|----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 4  | 0 | 0  | 0 | 0 | 4   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 84 | 0 | 4  | 0 | 0 | 111 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 61 | 0 | 0  | 0 | 0 | 1   | 73 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 1  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 578: detailed difference for col id1=AtMSQTsnp 31 vs col id2=AtMSQTsnp 31

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 31 | T     | 27      | AtMSQTsnp 31 | G     |

4.82 col id1=AtMSQTsnp 310 vs col id2=AtMSQTsnp 310

Table 579: col id1=AtMSQTsnp 310 vs col id2=AtMSQTsnp 310

|    |    | - | NA | A  | C  | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|----|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 1  | 4  | 1  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 96 | 0 | 11 | 97 | 1  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 49 | 0 | 8  | 0  | 70 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 580: detailed difference for col id1=AtMSQTsnp 310 vs col id2=AtMSQTsnp 310

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 310 | A     | 27      | AtMSQTsnp 310 | C     |

4.83 col id1=AtMSQTsnp 312 vs col id2=AtMSQTsnp 312

Table 581: col id1=AtMSQTsnp 312 vs col id2=AtMSQTsnp 312

|    |    | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|-----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 8  | 0 | 0  | 0 | 1  | 0 | 5   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 44 | 0 | 2  | 0 | 56 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 97 | 0 | 4  | 0 | 0  | 0 | 125 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

4.84 col id1=AtMSQTsnp 315 vs col id2=AtMSQTsnp 315

Table 582: col id1=AtMSQTsnp 315 vs col id2=AtMSQTsnp 315

|    |     | - | NA | A  | C | G | T   | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|----|---|---|-----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1   | 0 | 1  | 0  | 0 | 0 | 4   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 36  | 0 | 4  | 40 | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 116 | 0 | 24 | 0  | 0 | 0 | 115 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 1   | 0 | 0  | 0  | 0 | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Table 583: detailed difference for col id1=AtMSQTsnp 315 vs col id2=AtMSQTsnp 315

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6897, 1)/Ag-0 | AtMSQTsnp 315 | AT    | 67      | AtMSQTsnp 315 | T     |

4.85    col id1=AtMSQTsnp 321 vs col id2=AtMSQTsnp 321

Table 584: col id1=AtMSQTsnp 321 vs col id2=AtMSQTsnp 321

|    |     |   |    |    |    |   |   |    |    |    |    |    |    |
|----|-----|---|----|----|----|---|---|----|----|----|----|----|----|
|    |     |   |    |    |    |   |   |    |    |    |    |    |    |
|    |     | - | NA | A  | C  | G | T | AC | AG | AT | CG | CT | GT |
|    | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 1  | 3  | 2  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 30  | 0 | 17 | 52 | 3  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 118 | 0 | 34 | 4  | 77 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 585: detailed difference for col id1=AtMSQTsnp 321 vs col id2=AtMSQTsnp 321

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1   | AtMSQTsnp 321 | A     | 27      | AtMSQTsnp 321 | C     |
| (6907, 1)/CIBC-17 | AtMSQTsnp 321 | A     | 40      | AtMSQTsnp 321 | C     |
| (6908, 1)/CIBC-5  | AtMSQTsnp 321 | C     | 39      | AtMSQTsnp 321 | A     |
| (6958, 1)/Ra-0    | AtMSQTsnp 321 | C     | 69      | AtMSQTsnp 321 | A     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 321 | A     | 40      | AtMSQTsnp 321 | C     |
| (8277, 1)/CIBC-5  | AtMSQTsnp 321 | C     | 39      | AtMSQTsnp 321 | A     |
| (8364, 1)/Ra-0    | AtMSQTsnp 321 | C     | 69      | AtMSQTsnp 321 | A     |

4.86    col id1=AtMSQTsnp 323 vs col id2=AtMSQTsnp 323

Table 586: col id1=AtMSQTsnp 323 vs col id2=AtMSQTsnp 323

|    |    |   |    |     |   |    |   |    |    |    |    |    |    |
|----|----|---|----|-----|---|----|---|----|----|----|----|----|----|
|    |    |   |    |     |   |    |   |    |    |    |    |    |    |
|    |    | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 4   | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 95 | 0 | 4  | 104 | 0 | 0  | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 59 | 0 | 0  | 1   | 0 | 65 | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 587: detailed difference for col id1=AtMSQTsnp 323 vs col id2=AtMSQTsnp 323

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 323 | G     | 27      | AtMSQTsnp 323 | A     |
| (6938, 1)/Ms-0  | AtMSQTsnp 323 | G     | 92      | AtMSQTsnp 323 | AG    |
| (6977, 1)/Van-0 | AtMSQTsnp 323 | A     | 64      | AtMSQTsnp 323 | AG    |
| (8340, 1)/Ms-0  | AtMSQTsnp 323 | G     | 92      | AtMSQTsnp 323 | AG    |

|                 |               |   |    |               |    |
|-----------------|---------------|---|----|---------------|----|
| (8400, 1)/Van-0 | AtMSQTsnp 323 | A | 64 | AtMSQTsnp 323 | AG |
|-----------------|---------------|---|----|---------------|----|

4.87    col id1=AtMSQTsnp 325 vs col id2=AtMSQTsnp 325

Table 588: col id1=AtMSQTsnp 325 vs col id2=AtMSQTsnp 325

|    |     | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4   | 0 | 3  | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 103 | 0 | 36 | 0 | 77 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 41  | 0 | 23 | 0 | 2  | 0 | 49 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 2   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 589: detailed difference for col id1=AtMSQTsnp 325 vs col id2=AtMSQTsnp 325

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 325 | C     | 27      | AtMSQTsnp 325 | T     |
| (6937, 1)/Mrk-0 | AtMSQTsnp 325 | T     | 72      | AtMSQTsnp 325 | C     |
| (8339, 1)/Mrk-0 | AtMSQTsnp 325 | T     | 72      | AtMSQTsnp 325 | C     |

4.88    col id1=AtMSQTsnp 327 vs col id2=AtMSQTsnp 327

Table 590: col id1=AtMSQTsnp 327 vs col id2=AtMSQTsnp 327

|    |    | - | NA | A | C | G  | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|----|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 32 | 0 | 35 | 0 | 0 | 26 | 43 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 49 | 0 | 11 | 0 | 0 | 32 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 68 | 0 | 8  | 0 | 0 | 2  | 35 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 1  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 591: detailed difference for col id1=AtMSQTsnp 327 vs col id2=AtMSQTsnp 327

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6907, 1)/CIBC-17 | AtMSQTsnp 327 | T     | 40      | AtMSQTsnp 327 | G     |
| (6908, 1)/CIBC-5  | AtMSQTsnp 327 | G     | 39      | AtMSQTsnp 327 | T     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 327 | T     | 40      | AtMSQTsnp 327 | G     |

4.89    col id1=AtMSQTsnp 33 vs col id2=AtMSQTsnp 33

Table 592: col id1=AtMSQTsnp 33 vs col id2=AtMSQTsnp 33

|    |     | - | NA | A | C | G  | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|---|----|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 146 | 0 | 2  | 0 | 0 | 97 | 81 | 0  | 0  | 0  | 0  | 0  | 0  |



|    |   |   |   |   |   |    |   |   |   |   |   |   |   |
|----|---|---|---|---|---|----|---|---|---|---|---|---|---|
| A  | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 3 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 1 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

4.90    col id1=AtMSQTsnp 331 vs col id2=AtMSQTsnp 331

Table 593: col id1=AtMSQTsnp 331 vs col id2=AtMSQTsnp 331

|    |    | - | NA | A | C  | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 83 | 0 | 0  | 0 | 52 | 42 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 30 | 0 | 0  | 0 | 48 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 36 | 0 | 0  | 0 | 0  | 50 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 1  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 594: detailed difference for col id1=AtMSQTsnp 331 vs col id2=AtMSQTsnp 331

| row id1        | col id1       | call1 | row id2 | col id2       | call2 |
|----------------|---------------|-------|---------|---------------|-------|
| (6938, 1)/Ms-0 | AtMSQTsnp 331 | C     | 92      | AtMSQTsnp 331 | G     |

4.91    col id1=AtMSQTsnp 334 vs col id2=AtMSQTsnp 334

Table 595: col id1=AtMSQTsnp 334 vs col id2=AtMSQTsnp 334

|    |     | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4   | 0 | 0  | 0 | 6  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 118 | 0 | 4  | 0 | 95 | 0 | 6  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 28  | 0 | 2  | 0 | 5  | 0 | 75 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 596: detailed difference for col id1=AtMSQTsnp 334 vs col id2=AtMSQTsnp 334

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6907, 1)/CIBC-17 | AtMSQTsnp 334 | C     | 40      | AtMSQTsnp 334 | T     |
| (6908, 1)/CIBC-5  | AtMSQTsnp 334 | T     | 39      | AtMSQTsnp 334 | C     |
| (6945, 1)/Nok-3   | AtMSQTsnp 334 | T     | 80      | AtMSQTsnp 334 | C     |
| (6972, 1)/Tsu-1   | AtMSQTsnp 334 | C     | 78      | AtMSQTsnp 334 | T     |
| (6982, 1)/Wt-5    | AtMSQTsnp 334 | C     | 74      | AtMSQTsnp 334 | T     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 334 | C     | 40      | AtMSQTsnp 334 | T     |
| (8277, 1)/CIBC-5  | AtMSQTsnp 334 | T     | 39      | AtMSQTsnp 334 | C     |
| (8347, 1)/Nok-3   | AtMSQTsnp 334 | T     | 80      | AtMSQTsnp 334 | C     |
| (8364, 1)/Ra-0    | AtMSQTsnp 334 | T     | 69      | AtMSQTsnp 334 | C     |
| (8394, 1)/Tsu-1   | AtMSQTsnp 334 | C     | 78      | AtMSQTsnp 334 | T     |

|                |               |   |    |               |   |
|----------------|---------------|---|----|---------------|---|
| (8407, 1)/Wt-5 | AtMSQTsnp 334 | C | 74 | AtMSQTsnp 334 | T |
|----------------|---------------|---|----|---------------|---|

4.92    col id1=AtMSQTsnp 343 vs col id2=AtMSQTsnp 343

Table 597: col id1=AtMSQTsnp 343 vs col id2=AtMSQTsnp 343

|    |    | - | NA | A | C   | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|-----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 1   | 0 | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 82 | 0 | 0  | 0 | 104 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 64 | 0 | 0  | 0 | 1   | 0 | 84 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 598: detailed difference for col id1=AtMSQTsnp 343 vs col id2=AtMSQTsnp 343

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 343 | T     | 27      | AtMSQTsnp 343 | C     |

4.93    col id1=AtMSQTsnp 350 vs col id2=AtMSQTsnp 350

Table 599: col id1=AtMSQTsnp 350 vs col id2=AtMSQTsnp 350

|    |     | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |  |
|----|-----|---|----|----|---|-----|---|----|----|----|----|----|----|--|
|    | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 2   | 0 | 0  | 2  | 0 | 5   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 42  | 0 | 0  | 68 | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 106 | 0 | 0  | 0  | 0 | 118 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.94    col id1=AtMSQTsnp 351 vs col id2=AtMSQTsnp 351

Table 600: col id1=AtMSQTsnp 351 vs col id2=AtMSQTsnp 351

|    |     | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |  |
|----|-----|---|----|----|---|-----|---|----|----|----|----|----|----|--|
|    | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 7   | 0 | 0  | 1  | 0 | 4   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 35  | 0 | 0  | 55 | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 108 | 0 | 0  | 0  | 0 | 133 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.95    col id1=AtMSQTsnp 355 vs col id2=AtMSQTsnp 355

Table 601: col id1=AtMSQTsnp 355 vs col id2=AtMSQTsnp 355

|    |     | - | NA | A | C | G  | T   | AC | AG | AT | CG | CT | GT |  |
|----|-----|---|----|---|---|----|-----|----|----|----|----|----|----|--|
|    | 0   | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 8   | 0 | 0  | 0 | 0 | 1  | 3   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0   | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0   | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 36  | 0 | 0  | 0 | 0 | 45 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 122 | 0 | 0  | 0 | 0 | 0  | 127 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0   | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0   | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0   | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0   | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0   | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0   | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 602: detailed difference for col id1=AtMSQTsnp 355 vs col id2=AtMSQTsnp 355

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 355 | G     | 27      | AtMSQTsnp 355 | T     |

4.96    col id1=AtMSQTsnp 358 vs col id2=AtMSQTsnp 358

Table 603: col id1=AtMSQTsnp 358 vs col id2=AtMSQTsnp 358

|    |    | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|-----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 1  | 0 | 4   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 52 | 0 | 0  | 70 | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 93 | 0 | 0  | 1  | 0 | 117 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 604: detailed difference for col id1=AtMSQTsnp 358 vs col id2=AtMSQTsnp 358

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 358 | G     | 27      | AtMSQTsnp 358 | A     |

4.97    col id1=AtMSQTsnp 359 vs col id2=AtMSQTsnp 359

Table 605: col id1=AtMSQTsnp 359 vs col id2=AtMSQTsnp 359

|    |    | - | NA | A | C | G  | T   | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|----|-----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 3  | 0 | 0  | 0 | 0 | 2  | 1   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 77 | 0 | 2  | 0 | 0 | 74 | 0   | 0  | 0  | 0  | 0  | 0  | 2  |  |
| T  | 72 | 0 | 2  | 0 | 0 | 0  | 108 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Table 606: detailed difference for col id1=AtMSQTsnp 359 vs col id2=AtMSQTsnp 359

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 359 | G     | 64      | AtMSQTsnp 359 | GT    |
| (8400, 1)/Van-0 | AtMSQTsnp 359 | G     | 64      | AtMSQTsnp 359 | GT    |

4.98    col id1=AtMSQTsnp 360 vs col id2=AtMSQTsnp 360

Table 607: col id1=AtMSQTsnp 360 vs col id2=AtMSQTsnp 360

|    |    | - | NA | A | C | G  | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|---|----|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 88 | 0 | 5  | 0 | 0 | 60 | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 38 | 0 | 4  | 0 | 0 | 54 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 37 | 0 | 1  | 0 | 0 | 0  | 28 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

4.99    col id1=AtMSQTsnp 361 vs col id2=AtMSQTsnp 361

Table 608: col id1=AtMSQTsnp 361 vs col id2=AtMSQTsnp 361

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 3  | 0 | 3  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 67 | 0 | 0  | 88 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 80 | 0 | 0  | 0  | 0 | 99 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.100    col id1=AtMSQTsnp 368 vs col id2=AtMSQTsnp 368

Table 609: col id1=AtMSQTsnp 368 vs col id2=AtMSQTsnp 368

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 84 | 0 | 0  | 44 | 0 | 52 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 24 | 0 | 0  | 43 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 42 | 0 | 0  | 1  | 0 | 53 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 610: detailed difference for col id1=AtMSQTsnp 368 vs col id2=AtMSQTsnp 368

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 368 | G     | 27      | AtMSQTsnp 368 | A     |

4.101    col id1=AtMSQTsnp 370 vs col id2=AtMSQTsnp 370

Table 611: col id1=AtMSQTsnp 370 vs col id2=AtMSQTsnp 370

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 13 | 0 | 7  | 11 | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 50 | 0 | 0  | 72 | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 95 | 0 | 7  | 8  | 0 | 77 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 612: detailed difference for col id1=AtMSQTsnp 370 vs col id2=AtMSQTsnp 370

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 370 | A     | 27      | AtMSQTsnp 370 | G     |
| (6043, 1)/L     | AtMSQTsnp 370 | G     | 11      | AtMSQTsnp 370 | A     |
| (6046, 1)/L     | AtMSQTsnp 370 | G     | 12      | AtMSQTsnp 370 | A     |
| (6900, 1)/Bil-5 | AtMSQTsnp 370 | G     | 15      | AtMSQTsnp 370 | A     |
| (6901, 1)/Bil-7 | AtMSQTsnp 370 | G     | 16      | AtMSQTsnp 370 | A     |
| (6935, 1)/L     | AtMSQTsnp 370 | G     | 12      | AtMSQTsnp 370 | A     |
| (6971, 1)/Ts-5  | AtMSQTsnp 370 | G     | 85      | AtMSQTsnp 370 | A     |
| (6981, 1)/Ws-2  | AtMSQTsnp 370 | G     | 96      | AtMSQTsnp 370 | A     |
| (8263, 1)/Bil-7 | AtMSQTsnp 370 | G     | 16      | AtMSQTsnp 370 | A     |

4.102    col id1=AtMSQTsnp 372 vs col id2=AtMSQTsnp 372

Table 613: col id1=AtMSQTsnp 372 vs col id2=AtMSQTsnp 372

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 42 | 0 | 6  | 3  | 0 | 34 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 77 | 0 | 32 | 82 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 31 | 0 | 5  | 0  | 0 | 31 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.103    col id1=AtMSQTsnp 373 vs col id2=AtMSQTsnp 373

Table 614: col id1=AtMSQTsnp 373 vs col id2=AtMSQTsnp 373

|    |    | - | NA | A  | C | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 8  | 0 | 4  | 0  | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 35 | 0 | 4  | 39 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |     |   |    |   |   |     |   |   |   |   |   |   |   |
|----|-----|---|----|---|---|-----|---|---|---|---|---|---|---|
| C  | 0   | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 110 | 0 | 20 | 2 | 0 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 0   | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0   | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 11  | 0 | 1  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0   | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0   | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0   | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0   | 0 | 0  | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 615: detailed difference for col id1=AtMSQTsnp 373 vs col id2=AtMSQTsnp 373

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 373 | A     | 27      | AtMSQTsnp 373 | G     |
| (7519, 1)/      | AtMSQTsnp 373 | G     | 22      | AtMSQTsnp 373 | A     |
| (8350, 1)/      | AtMSQTsnp 373 | G     | 22      | AtMSQTsnp 373 | A     |

4.104    col id1=AtMSQTsnp 378 vs col id2=AtMSQTsnp 378

Table 616: col id1=AtMSQTsnp 378 vs col id2=AtMSQTsnp 378

|    |    | - | NA | A | C  | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 0 | 3  | 1  | 4 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 52 | 0 | 0  | 0 | 88 | 2  | 0 | 0  | 0  | 0  | 2  | 0  | 0  |
| G  | 94 | 0 | 2  | 0 | 0  | 91 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 617: detailed difference for col id1=AtMSQTsnp 378 vs col id2=AtMSQTsnp 378

| row id1          | col id1       | call1 | row id2 | col id2       | call2 |
|------------------|---------------|-------|---------|---------------|-------|
| (6927, 1)/KNO-10 | AtMSQTsnp 378 | C     | 3       | AtMSQTsnp 378 | G     |
| (6977, 1)/Van-0  | AtMSQTsnp 378 | C     | 64      | AtMSQTsnp 378 | CG    |
| (8317, 1)/Kno-10 | AtMSQTsnp 378 | C     | 3       | AtMSQTsnp 378 | G     |
| (8400, 1)/Van-0  | AtMSQTsnp 378 | C     | 64      | AtMSQTsnp 378 | CG    |

4.105    col id1=AtMSQTsnp 379 vs col id2=AtMSQTsnp 379

Table 618: col id1=AtMSQTsnp 379 vs col id2=AtMSQTsnp 379

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5  | 0 | 0  | 4  | 0 | 3  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 58 | 0 | 6  | 93 | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 87 | 0 | 0  | 0  | 0 | 86 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 619: detailed difference for col id1=AtMSQTsnp 379 vs col id2=AtMSQTsnp 379

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 379 | A     | 27      | AtMSQTsnp 379 | G     |

4.106    col id1=AtMSQTsnp 38 vs col id2=AtMSQTsnp 38

Table 620: col id1=AtMSQTsnp 38 vs col id2=AtMSQTsnp 38

|    |     | - | NA | A   | C  | G | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|-----|----|---|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 2  | 3   | 1  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 122 | 0 | 12 | 118 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 26  | 0 | 2  | 0   | 55 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0   | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.107    col id1=AtMSQTsnp 388 vs col id2=AtMSQTsnp 388

Table 621: col id1=AtMSQTsnp 388 vs col id2=AtMSQTsnp 388

|    |     | - | NA | A  | C   | G | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|----|-----|---|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 8   | 0 | 0  | 2  | 7   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 21  | 0 | 0  | 47 | 1   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 121 | 0 | 0  | 2  | 134 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 622: detailed difference for col id1=AtMSQTsnp 388 vs col id2=AtMSQTsnp 388

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 388 | A     | 27      | AtMSQTsnp 388 | C     |
| (6959, 1)/REN-1 | AtMSQTsnp 388 | C     | 47      | AtMSQTsnp 388 | A     |
| (8367, 1)/Ren-1 | AtMSQTsnp 388 | C     | 47      | AtMSQTsnp 388 | A     |

4.108    col id1=AtMSQTsnp 390 vs col id2=AtMSQTsnp 390

Table 623: col id1=AtMSQTsnp 390 vs col id2=AtMSQTsnp 390

|    |     | - | NA | A | C   | G | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|-----|---|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5   | 0 | 0  | 0 | 6   | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 107 | 0 | 0  | 0 | 123 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 38  | 0 | 0  | 0 | 0   | 0 | 60 | 0  | 0  | 0  | 0  | 2  | 0  |
| AC | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 624: detailed difference for col id1=AtMSQTsnp 390 vs col id2=AtMSQTsnp 390

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 390 | C     | 27      | AtMSQTsnp 390 | T     |
| (6977, 1)/Van-0 | AtMSQTsnp 390 | T     | 64      | AtMSQTsnp 390 | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 390 | T     | 64      | AtMSQTsnp 390 | CT    |

4.109    col id1=AtMSQTsnp 392 vs col id2=AtMSQTsnp 392

Table 625: col id1=AtMSQTsnp 392 vs col id2=AtMSQTsnp 392

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 72 | 0 | 14 | 18 | 0 | 58 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 26 | 0 | 2  | 28 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 52 | 0 | 14 | 1  | 0 | 58 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 626: detailed difference for col id1=AtMSQTsnp 392 vs col id2=AtMSQTsnp 392

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6959, 1)/REN-1 | AtMSQTsnp 392 | G     | 47      | AtMSQTsnp 392 | A     |

4.110    col id1=AtMSQTsnp 394 vs col id2=AtMSQTsnp 394

Table 627: col id1=AtMSQTsnp 394 vs col id2=AtMSQTsnp 394

|    |    | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|-----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1  | 0 | 0  | 1   | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 90 | 0 | 2  | 108 | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 59 | 0 | 2  | 0   | 0 | 78 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 628: detailed difference for col id1=AtMSQTsnp 394 vs col id2=AtMSQTsnp 394

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 394 | A     | 27      | AtMSQTsnp 394 | G     |



4.111 col id1=AtMSQTsnp 395 vs col id2=AtMSQTsnp 395

Table 629: col id1=AtMSQTsnp 395 vs col id2=AtMSQTsnp 395

|    |    | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|-----|---|----|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 5  | 0 | 0  | 4   | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 99 | 0 | 0  | 114 | 0 | 0  | 0 | 0  | 2  | 0  | 0  | 0  | 0  |  |
| C  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 45 | 0 | 0  | 0   | 0 | 71 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 1  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 630: detailed difference for col id1=AtMSQTsnp 395 vs col id2=AtMSQTsnp 395

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 395 | A     | 64      | AtMSQTsnp 395 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 395 | A     | 64      | AtMSQTsnp 395 | AG    |

4.112 col id1=AtMSQTsnp 397 vs col id2=AtMSQTsnp 397

Table 631: col id1=AtMSQTsnp 397 vs col id2=AtMSQTsnp 397

|    |     | - | NA | A | C | G   | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|---|-----|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1   | 0 | 0  | 0 | 0 | 2   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 110 | 0 | 5  | 0 | 0 | 129 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 38  | 0 | 0  | 0 | 0 | 0   | 55 | 0  | 0  | 0  | 0  | 0  | 2  |
| AC | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 1   | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 632: detailed difference for col id1=AtMSQTsnp 397 vs col id2=AtMSQTsnp 397

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 397 | T     | 64      | AtMSQTsnp 397 | GT    |
| (8400, 1)/Van-0 | AtMSQTsnp 397 | T     | 64      | AtMSQTsnp 397 | GT    |

4.113 col id1=AtMSQTsnp 398 vs col id2=AtMSQTsnp 398

Table 633: col id1=AtMSQTsnp 398 vs col id2=AtMSQTsnp 398

|    |    | - | NA | A | C  | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 22 | 0 | 0  | 0 | 23 | 28 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 63 | 0 | 0  | 0 | 67 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 65 | 0 | 0  | 0 | 1  | 74 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 634: detailed difference for col id1=AtMSQTsnp 398 vs col id2=AtMSQTsnp 398

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 398 | G     | 27      | AtMSQTsnp 398 | C     |

4.114    col id1=AtMSQTsnp 399 vs col id2=AtMSQTsnp 399

Table 635: col id1=AtMSQTsnp 399 vs col id2=AtMSQTsnp 399

|    |    | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|-----|---|----|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 4  | 0 | 0  | 4   | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 92 | 0 | 0  | 119 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 53 | 0 | 0  | 0   | 0 | 68 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 1  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.115    col id1=AtMSQTsnp 4 vs col id2=AtMSQTsnp 4

Table 636: col id1=AtMSQTsnp 4 vs col id2=AtMSQTsnp 4

|    |    | - | NA | A  | C   | G | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|----|-----|---|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 5  | 0 | 0  | 4  | 1   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 54 | 0 | 2  | 71 | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 94 | 0 | 0  | 0  | 112 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0  | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0  | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.116    col id1=AtMSQTsnp 40 vs col id2=AtMSQTsnp 40

Table 637: col id1=AtMSQTsnp 40 vs col id2=AtMSQTsnp 40

|    |     | - | NA | A | C  | G  | T | AC | AG | AT | CG | CT | GT |  |
|----|-----|---|----|---|----|----|---|----|----|----|----|----|----|--|
|    | 0   | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 5   | 0 | 0  | 0 | 6  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0   | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 102 | 0 | 0  | 0 | 99 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 43  | 0 | 0  | 0 | 0  | 87 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0   | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0   | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0   | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0   | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0   | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0   | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0   | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 638: detailed difference for col id1=AtMSQTsnp 40 vs col id2=AtMSQTsnp 40

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 40 | C     | 27      | AtMSQTsnp 40 | G     |

4.117 col id1=AtMSQTsnp 404 vs col id2=AtMSQTsnp 404

Table 639: col id1=AtMSQTsnp 404 vs col id2=AtMSQTsnp 404

|    |    | - | NA | A | C   | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|-----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2  | 0 | 0  | 0 | 3   | 0 | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 88 | 0 | 0  | 0 | 105 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 60 | 0 | 2  | 0 | 0   | 0 | 80 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

4.118 col id1=AtMSQTsnp 406 vs col id2=AtMSQTsnp 406

Table 640: col id1=AtMSQTsnp 406 vs col id2=AtMSQTsnp 406

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 85 | 0 | 0  | 66 | 0 | 30 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 43 | 0 | 0  | 65 | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 22 | 0 | 0  | 0  | 0 | 31 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 641: detailed difference for col id1=AtMSQTsnp 406 vs col id2=AtMSQTsnp 406

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 406 | A     | 27      | AtMSQTsnp 406 | G     |

4.119 col id1=AtMSQTsnp 408 vs col id2=AtMSQTsnp 408

Table 642: col id1=AtMSQTsnp 408 vs col id2=AtMSQTsnp 408

|    |    | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|-----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2  | 0 | 0  | 1   | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 77 | 0 | 5  | 107 | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 71 | 0 | 0  | 0   | 0 | 78 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 643: detailed difference for col id1=AtMSQTsnp 408 vs col id2=AtMSQTsnp 408

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 408 | A     | 27      | AtMSQTsnp 408 | G     |

4.120    col id1=AtMSQTsnp 409 vs col id2=AtMSQTsnp 409

Table 644: col id1=AtMSQTsnp 409 vs col id2=AtMSQTsnp 409

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 17 | 0 | 1  | 0 | 26 | 0 | 21 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 79 | 0 | 0  | 0 | 91 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 54 | 0 | 1  | 0 | 0  | 0 | 53 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

4.121    col id1=AtMSQTsnp 41 vs col id2=AtMSQTsnp 41

Table 645: col id1=AtMSQTsnp 41 vs col id2=AtMSQTsnp 41

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 11 | 0 | 1  | 0 | 24 | 0 | 21 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 75 | 0 | 1  | 0 | 86 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 63 | 0 | 0  | 0 | 0  | 0 | 60 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 1  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

4.122    col id1=AtMSQTsnp 410 vs col id2=AtMSQTsnp 410

Table 646: col id1=AtMSQTsnp 410 vs col id2=AtMSQTsnp 410

|    |    | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|-----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 0  | 3   | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 98 | 0 | 0  | 101 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 49 | 0 | 0  | 1   | 0 | 82 | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 1  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 647: detailed difference for col id1=AtMSQTsnp 410 vs col id2=AtMSQTsnp 410

| row id1         | col id1       | call1 | row id2 | col id2       | call2 |
|-----------------|---------------|-------|---------|---------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 410 | G     | 27      | AtMSQTsnp 410 | A     |
| (6977, 1)/Van-0 | AtMSQTsnp 410 | G     | 64      | AtMSQTsnp 410 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 410 | G     | 64      | AtMSQTsnp 410 | AG    |

4.123 col id1=AtMSQTsnp 412 vs col id2=AtMSQTsnp 412

Table 648: col id1=AtMSQTsnp 412 vs col id2=AtMSQTsnp 412

|    |     | - | NA | A   | C | G | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|-----|---|---|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 7   | 0 | 0  | 4   | 0 | 0 | 3  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 101 | 0 | 4  | 125 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 44  | 0 | 0  | 0   | 0 | 0 | 55 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

4.124 col id1=AtMSQTsnp 415 vs col id2=AtMSQTsnp 415

Table 649: col id1=AtMSQTsnp 415 vs col id2=AtMSQTsnp 415

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 2  | 2  | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 52 | 0 | 17 | 58 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 95 | 0 | 46 | 2  | 0 | 64 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 650: detailed difference for col id1=AtMSQTsnp 415 vs col id2=AtMSQTsnp 415

| row id1           | col id1       | call1 | row id2 | col id2       | call2 |
|-------------------|---------------|-------|---------|---------------|-------|
| (6907, 1)/CIBC-17 | AtMSQTsnp 415 | G     | 40      | AtMSQTsnp 415 | A     |
| (8276, 1)/CIBC-17 | AtMSQTsnp 415 | G     | 40      | AtMSQTsnp 415 | A     |

4.125 col id1=AtMSQTsnp 47 vs col id2=AtMSQTsnp 47

Table 651: col id1=AtMSQTsnp 47 vs col id2=AtMSQTsnp 47

|    |    | - | NA | A  | C  | G | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|----|---|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 86 | 0 | 1  | 60 | 35 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 46 | 0 | 0  | 60 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 21 | 0 | 1  | 0  | 33 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

4.126    col id1=AtMSQTsnp 48 vs col id2=AtMSQTsnp 48

Table 652: col id1=AtMSQTsnp 48 vs col id2=AtMSQTsnp 48

|    |     | - | NA | A | C   | G | T  | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|---|-----|---|----|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5   | 0 | 0  | 0 | 3   | 0 | 2  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 102 | 0 | 2  | 0 | 122 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 43  | 0 | 4  | 0 | 0   | 0 | 59 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

Table 653: detailed difference for col id1=AtMSQTsnp 48 vs col id2=AtMSQTsnp 48

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 48 | C     | 27      | AtMSQTsnp 48 | T     |

4.127    col id1=AtMSQTsnp 49 vs col id2=AtMSQTsnp 49

Table 654: col id1=AtMSQTsnp 49 vs col id2=AtMSQTsnp 49

|    |    | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|-----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 1  | 0 | 0  | 0 | 3  | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 72 | 0 | 0  | 0 | 63 | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 77 | 6 | 4  | 0 | 0  | 0 | 115 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

Table 655: detailed difference for col id1=AtMSQTsnp 49 vs col id2=AtMSQTsnp 49

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 49 | C     | 27      | AtMSQTsnp 49 | T     |

4.128    col id1=AtMSQTsnp 53 vs col id2=AtMSQTsnp 53

Table 656: col id1=AtMSQTsnp 53 vs col id2=AtMSQTsnp 53

|    |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |
|----|---|---|----|---|---|---|---|----|----|----|----|----|----|
|    | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 5 | 0 | 1  | 0 | 2 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |    |   |    |   |    |   |    |   |   |   |   |   |   |
|----|----|---|----|---|----|---|----|---|---|---|---|---|---|
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 65 | 0 | 1  | 0 | 70 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 95 | 0 | 11 | 0 | 0  | 0 | 92 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 |

4.129    col id1=AtMSQTsnp 54 vs col id2=AtMSQTsnp 54

Table 657: col id1=AtMSQTsnp 54 vs col id2=AtMSQTsnp 54

|    |    | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|-----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3  | 0 | 0  | 4   | 0 | 5  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 82 | 0 | 0  | 116 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 63 | 0 | 0  | 0   | 0 | 68 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 2  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

4.130    col id1=AtMSQTsnp 57 vs col id2=AtMSQTsnp 57

Table 658: col id1=AtMSQTsnp 57 vs col id2=AtMSQTsnp 57

|    |    | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|---|-----|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 4  | 0 | 1  | 0 | 3  | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 44 | 0 | 0  | 0 | 50 | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 99 | 0 | 0  | 0 | 0  | 0 | 136 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 3  | 0 | 1  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

Table 659: detailed difference for col id1=AtMSQTsnp 57 vs col id2=AtMSQTsnp 57

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 57 | C     | 27      | AtMSQTsnp 57 | T     |

4.131    col id1=AtMSQTsnp 58 vs col id2=AtMSQTsnp 58

Table 660: col id1=AtMSQTsnp 58 vs col id2=AtMSQTsnp 58

|    |    | - | NA | A | C  | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|---|----|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 85 | 0 | 0  | 0 | 60 | 35 | 0 | 0  | 0  | 0  | 2  | 0  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 44 | 0 | 0  | 0 | 61 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 21 | 0 | 0  | 0 | 0  | 34 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0 | 0  | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 661: detailed difference for col id1=AtMSQTsnp 58 vs col id2=AtMSQTsnp 58

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 58 | C     | 27      | AtMSQTsnp 58 | G     |

4.132    col id1=AtMSQTsnp 60 vs col id2=AtMSQTsnp 60

Table 662: col id1=AtMSQTsnp 60 vs col id2=AtMSQTsnp 60

|    |    | - | NA | A  | C | G | T  | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|----|---|---|----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 85 | 1 | 4  | 62 | 0 | 0 | 30 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 48 | 1 | 2  | 59 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 17 | 0 | 2  | 0  | 0 | 0 | 32 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.133    col id1=AtMSQTsnp 61 vs col id2=AtMSQTsnp 61

Table 663: col id1=AtMSQTsnp 61 vs col id2=AtMSQTsnp 61

|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 76 | 0 | 17 | 0 | 55 | 0 | 25 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 52 | 0 | 7  | 0 | 63 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 20 | 0 | 1  | 0 | 0  | 0 | 25 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 2  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.134    col id1=AtMSQTsnp 62 vs col id2=AtMSQTsnp 62

Table 664: col id1=AtMSQTsnp 62 vs col id2=AtMSQTsnp 62

|    |     | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |  |
|----|-----|---|----|-----|---|----|---|----|----|----|----|----|----|--|
|    | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 4   | 0 | 0  | 4   | 0 | 2  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 111 | 0 | 0  | 125 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 35  | 0 | 0  | 0   | 0 | 62 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |



|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

4.135    col id1=AtMSQTsnp 63 vs col id2=AtMSQTsnp 63

Table 665: col id1=AtMSQTsnp 63 vs col id2=AtMSQTsnp 63

|    |     | - | NA | A  | C  | G | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|----|----|---|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 9   | 0 | 1  | 5  | 3  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 57  | 0 | 0  | 62 | 0  | 0 | 0 | 2  | 0  | 0  | 0  | 0  | 0  |
| C  | 110 | 0 | 16 | 0  | 77 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 1  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0  | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 666: detailed difference for col id1=AtMSQTsnp 63 vs col id2=AtMSQTsnp 63

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 63 | A     | 64      | AtMSQTsnp 63 | AC    |
| (8400, 1)/Van-0 | AtMSQTsnp 63 | A     | 64      | AtMSQTsnp 63 | AC    |

4.136    col id1=AtMSQTsnp 65 vs col id2=AtMSQTsnp 65

Table 667: col id1=AtMSQTsnp 65 vs col id2=AtMSQTsnp 65

|    |     | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|-----|---|----|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 0  | 3   | 0 | 2  | 0 | 0  | 1  | 0  | 0  | 0  | 0  |
| A  | 109 | 0 | 0  | 122 | 0 | 0  | 0 | 0  | 1  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 39  | 0 | 0  | 0   | 0 | 64 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 668: detailed difference for col id1=AtMSQTsnp 65 vs col id2=AtMSQTsnp 65

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (8400, 1)/Van-0 | AtMSQTsnp 65 | A     | 64      | AtMSQTsnp 65 | AG    |

4.137    col id1=AtMSQTsnp 67 vs col id2=AtMSQTsnp 67

Table 669: col id1=AtMSQTsnp 67 vs col id2=AtMSQTsnp 67

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 84 | 0 | 1  | 42 | 0 | 51 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 28 | 0 | 0  | 46 | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 38 | 0 | 1  | 0  | 0 | 51 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 670: detailed difference for col id1=AtMSQTsnp 67 vs col id2=AtMSQTsnp 67

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 67 | A     | 27      | AtMSQTsnp 67 | G     |

4.138    col id1=AtMSQTsnp 69 vs col id2=AtMSQTsnp 69

Table 671: col id1=AtMSQTsnp 69 vs col id2=AtMSQTsnp 69

|    |    | - | NA | A | C | G   | T  | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|---|-----|----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1  | 0 | 0  | 0 | 0 | 3   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 81 | 0 | 2  | 0 | 0 | 120 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 68 | 0 | 6  | 0 | 0 | 0   | 62 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.139    col id1=AtMSQTsnp 73 vs col id2=AtMSQTsnp 73

Table 672: col id1=AtMSQTsnp 73 vs col id2=AtMSQTsnp 73

|    |    | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|----|---|-----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 17 | 0 | 0  | 0 | 16 | 0 | 10  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 41 | 0 | 0  | 0 | 67 | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 92 | 0 | 0  | 0 | 0  | 0 | 100 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.140    col id1=AtMSQTsnp 76 vs col id2=AtMSQTsnp 76

Table 673: col id1=AtMSQTsnp 76 vs col id2=AtMSQTsnp 76

|    |    | - | NA | A | C  | G | T   | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|----|---|-----|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 1  | 0 | 0  | 0 | 3  | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 53 | 0 | 2  | 0 | 57 | 0 | 1   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 96 | 0 | 4  | 0 | 0  | 0 | 125 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0  | 0 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |  |

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 674: detailed difference for col id1=AtMSQTsnp 76 vs col id2=AtMSQTsnp 76

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 76 | C     | 27      | AtMSQTsnp 76 | T     |

4.141    col id1=AtMSQTsnp 8 vs col id2=AtMSQTsnp 8

Table 675: col id1=AtMSQTsnp 8 vs col id2=AtMSQTsnp 8

|    |     |   |    |     |   |    |   |    |    |    |    |    |    |
|----|-----|---|----|-----|---|----|---|----|----|----|----|----|----|
|    |     |   |    |     |   |    |   |    |    |    |    |    |    |
|    |     | - | NA | A   | C | G  | T | AC | AG | AT | CG | CT | GT |
|    | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 2   | 0 | 2  | 6   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 115 | 0 | 29 | 106 | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 33  | 0 | 6  | 0   | 0 | 42 | 0 | 0  | 2  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0   | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 676: detailed difference for col id1=AtMSQTsnp 8 vs col id2=AtMSQTsnp 8

| row id1         | col id1     | call1 | row id2 | col id2     | call2 |
|-----------------|-------------|-------|---------|-------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 8 | G     | 64      | AtMSQTsnp 8 | AG    |
| (8400, 1)/Van-0 | AtMSQTsnp 8 | G     | 64      | AtMSQTsnp 8 | AG    |

4.142    col id1=AtMSQTsnp 85 vs col id2=AtMSQTsnp 85

Table 677: col id1=AtMSQTsnp 85 vs col id2=AtMSQTsnp 85

|    |     |   |    |     |   |   |    |    |    |    |    |    |    |
|----|-----|---|----|-----|---|---|----|----|----|----|----|----|----|
|    |     |   |    |     |   |   |    |    |    |    |    |    |    |
|    |     | - | NA | A   | C | G | T  | AC | AG | AT | CG | CT | GT |
|    | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 3   | 0 | 1  | 5   | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 125 | 0 | 9  | 112 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 26  | 0 | 2  | 0   | 0 | 0 | 59 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0   | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

4.143    col id1=AtMSQTsnp 87 vs col id2=AtMSQTsnp 87

Table 678: col id1=AtMSQTsnp 87 vs col id2=AtMSQTsnp 87

|    |    |   |    |   |    |   |    |    |    |    |    |    |    |
|----|----|---|----|---|----|---|----|----|----|----|----|----|----|
|    |    |   |    |   |    |   |    |    |    |    |    |    |    |
|    |    | - | NA | A | C  | G | T  | AC | AG | AT | CG | CT | GT |
|    | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 18 | 0 | 0  | 0 | 23 | 0 | 38 | 0  | 0  | 0  | 0  | 1  | 0  |
| A  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 74 | 0 | 0  | 0 | 85 | 0 | 0  | 0  | 0  | 0  | 0  | 1  | 0  |

|    |    |   |   |   |   |   |    |   |   |   |   |   |   |   |
|----|----|---|---|---|---|---|----|---|---|---|---|---|---|---|
| G  | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 60 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 679: detailed difference for col id1=AtMSQTsnp 87 vs col id2=AtMSQTsnp 87

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (8400, 1)/Van-0 | AtMSQTsnp 87 | C     | 64      | AtMSQTsnp 87 | CT    |

4.144    col id1=AtMSQTsnp 88 vs col id2=AtMSQTsnp 88

Table 680: col id1=AtMSQTsnp 88 vs col id2=AtMSQTsnp 88

|    |     |   |    |    |   |     |   |    |    |    |    |    |    |  |
|----|-----|---|----|----|---|-----|---|----|----|----|----|----|----|--|
|    |     |   |    |    |   |     |   |    |    |    |    |    |    |  |
|    |     | - | NA | A  | C | G   | T | AC | AG | AT | CG | CT | GT |  |
|    | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 4   | 0 | 0  | 3  | 0 | 1   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 49  | 0 | 0  | 45 | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 105 | 0 | 10 | 1  | 0 | 125 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0   | 0 | 0  | 0  | 0 | 0   | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 681: detailed difference for col id1=AtMSQTsnp 88 vs col id2=AtMSQTsnp 88

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 88 | G     | 27      | AtMSQTsnp 88 | A     |

4.145    col id1=AtMSQTsnp 9 vs col id2=AtMSQTsnp 9

Table 682: col id1=AtMSQTsnp 9 vs col id2=AtMSQTsnp 9

|    |    |   |    |   |   |    |    |    |    |    |    |    |    |  |
|----|----|---|----|---|---|----|----|----|----|----|----|----|----|--|
|    |    |   |    |   |   |    |    |    |    |    |    |    |    |  |
|    |    | - | NA | A | C | G  | T  | AC | AG | AT | CG | CT | GT |  |
|    | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 10 | 0 | 0  | 0 | 0 | 6  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| G  | 57 | 0 | 0  | 0 | 0 | 90 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 84 | 0 | 2  | 0 | 0 | 0  | 89 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 2  | 0 | 0  | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |  |

4.146    col id1=AtMSQTsnp 90 vs col id2=AtMSQTsnp 90

Table 683: col id1=AtMSQTsnp 90 vs col id2=AtMSQTsnp 90

|  |   |   |    |   |   |   |   |    |    |    |    |    |    |  |
|--|---|---|----|---|---|---|---|----|----|----|----|----|----|--|
|  |   |   |    |   |   |   |   |    |    |    |    |    |    |  |
|  |   | - | NA | A | C | G | T | AC | AG | AT | CG | CT | GT |  |
|  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

|    |    |   |   |   |    |   |     |   |   |   |   |   |   |
|----|----|---|---|---|----|---|-----|---|---|---|---|---|---|
| -  | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | 4  | 0 | 0 | 0 | 1  | 0 | 5   | 0 | 0 | 0 | 0 | 0 | 0 |
| A  | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| C  | 47 | 0 | 0 | 0 | 70 | 0 | 0   | 0 | 0 | 0 | 0 | 2 | 0 |
| G  | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| T  | 98 | 0 | 4 | 0 | 0  | 0 | 111 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| AG | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| CG | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| CT | 1  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |
| GT | 0  | 0 | 0 | 0 | 0  | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 |

Table 684: detailed difference for col id1=AtMSQTsnp 90 vs col id2=AtMSQTsnp 90

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (6977, 1)/Van-0 | AtMSQTsnp 90 | C     | 64      | AtMSQTsnp 90 | CT    |
| (8400, 1)/Van-0 | AtMSQTsnp 90 | C     | 64      | AtMSQTsnp 90 | CT    |

4.147    col id1=AtMSQTsnp 91 vs col id2=AtMSQTsnp 91

Table 685: col id1=AtMSQTsnp 91 vs col id2=AtMSQTsnp 91

|    |    | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 86 | 0 | 0  | 48 | 0 | 47 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 27 | 0 | 0  | 47 | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 37 | 0 | 0  | 0  | 0 | 50 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0  | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 686: detailed difference for col id1=AtMSQTsnp 91 vs col id2=AtMSQTsnp 91

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 91 | A     | 27      | AtMSQTsnp 91 | G     |

4.148    col id1=AtMSQTsnp 92 vs col id2=AtMSQTsnp 92

Table 687: col id1=AtMSQTsnp 92 vs col id2=AtMSQTsnp 92

|    |     | - | NA | A  | C | G  | T | AC | AG | AT | CG | CT | GT |
|----|-----|---|----|----|---|----|---|----|----|----|----|----|----|
|    | 0   | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| -  | 0   | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| NA | 106 | 0 | 5  | 17 | 0 | 52 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| A  | 35  | 0 | 4  | 19 | 0 | 1  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| C  | 0   | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| G  | 53  | 0 | 4  | 0  | 0 | 47 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| T  | 0   | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AC | 0   | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AG | 0   | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| AT | 0   | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CG | 0   | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| CT | 0   | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |
| GT | 0   | 0 | 0  | 0  | 0 | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |

Table 688: detailed difference for col id1=AtMSQTsnp 92 vs col id2=AtMSQTsnp 92

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 92 | A     | 27      | AtMSQTsnp 92 | G     |

4.149 col id1=AtMSQTsnp 97 vs col id2=AtMSQTsnp 97

Table 689: col id1=AtMSQTsnp 97 vs col id2=AtMSQTsnp 97

|    |    | - | NA | A | C   | G  | T | AC | AG | AT | CG | CT | GT |  |
|----|----|---|----|---|-----|----|---|----|----|----|----|----|----|--|
|    | 0  | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| -  | 0  | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| NA | 11 | 0 | 0  | 0 | 2   | 16 | 0 | 0  | 0  | 0  | 1  | 0  | 0  |  |
| A  | 0  | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| C  | 82 | 0 | 0  | 0 | 112 | 2  | 0 | 0  | 0  | 0  | 3  | 0  | 0  |  |
| G  | 62 | 0 | 0  | 0 | 0   | 49 | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| T  | 0  | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AC | 0  | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AG | 0  | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| AT | 0  | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CG | 3  | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| CT | 0  | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |
| GT | 0  | 0 | 0  | 0 | 0   | 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |  |

Table 690: detailed difference for col id1=AtMSQTsnp 97 vs col id2=AtMSQTsnp 97

| row id1         | col id1      | call1 | row id2 | col id2      | call2 |
|-----------------|--------------|-------|---------|--------------|-------|
| (5837, 1)/Bor-1 | AtMSQTsnp 97 | C     | 27      | AtMSQTsnp 97 | G     |
| (6939, 1)/Mt-0  | AtMSQTsnp 97 | C     | 79      | AtMSQTsnp 97 | G     |
| (6977, 1)/Van-0 | AtMSQTsnp 97 | C     | 64      | AtMSQTsnp 97 | CG    |
| (8293, 1)/F4    | AtMSQTsnp 97 | C     | 14      | AtMSQTsnp 97 | CG    |
| (8400, 1)/Van-0 | AtMSQTsnp 97 | C     | 64      | AtMSQTsnp 97 | CG    |