

| <b>a.</b> | TOOL     | MODEL    | GC   | SNP      | CHR | POS   | PVALUE   | SCR  | THR  | SGN |
|-----------|----------|----------|------|----------|-----|-------|----------|------|------|-----|
|           | GWASpoly | additive | 0.96 | c2_25471 | 10  | 48808 | 0.000002 | 5.67 | 4.50 | T   |
|           | GWASpoly | additive | 0.96 | c2_45611 | 10  | 48203 | 0.000003 | 5.51 | 4.50 | T   |
|           | GWASpoly | additive | 0.96 | c1_8019  | 10  | 48863 | 0.000005 | 5.27 | 4.50 | T   |
|           | GWASpoly | additive | 0.96 | c2_45606 | 10  | 48218 | 0.000021 | 4.68 | 4.50 | T   |
|           | GWASpoly | additive | 0.96 | c2_22188 | 11  | 40777 | 0.000050 | 4.30 | 4.50 | F   |
|           | GWASpoly | additive | 0.96 | c2_549   | 9   | 16527 | 0.000589 | 3.23 | 4.50 | F   |
|           | GWASpoly | additive | 0.96 | c1_8021  | 10  | 48862 | 0.000589 | 3.23 | 4.50 | F   |
|           | GWASpoly | additive | 0.96 | c1_329   | 10  | 56519 | 0.001514 | 2.82 | 4.50 | F   |
|           | GWASpoly | additive | 0.96 | c1_16351 | 10  | 48761 | 0.001622 | 2.79 | 4.50 | F   |
|           | PLINK    | additive | 1.19 | c1_16001 | 10  | 47539 | 0.000047 | 4.33 | 4.55 | F   |
|           | PLINK    | additive | 1.19 | c2_45606 | 10  | 48218 | 0.000688 | 3.16 | 4.55 | F   |
|           | PLINK    | additive | 1.19 | c2_45611 | 10  | 48203 | 0.000786 | 3.10 | 4.55 | F   |
|           | PLINK    | additive | 1.19 | c2_17192 | 1   | 70472 | 0.001123 | 2.95 | 4.55 | F   |
|           | PLINK    | additive | 1.19 | c2_39509 | 9   | 50174 | 0.001440 | 2.84 | 4.55 | F   |
|           | PLINK    | additive | 1.19 | c1_13530 | 10  | 48149 | 0.001443 | 2.84 | 4.55 | F   |
|           | PLINK    | additive | 1.19 | c2_9245  | 6   | 57953 | 0.002455 | 2.61 | 4.55 | F   |
|           | PLINK    | additive | 1.19 | c2_12125 | 1   | 71450 | 0.002593 | 2.59 | 4.55 | F   |
|           | PLINK    | additive | 1.19 | c2_5774  | 6   | 50345 | 0.004336 | 2.36 | 4.55 | F   |
|           | SHEsis   | general  | 1.47 | c1_8019  | 10  | 48863 | 0.000000 | 7.64 | 4.55 | T   |
|           | SHEsis   | general  | 1.47 | c1_13526 | 10  | 48020 | 0.000000 | 6.94 | 4.55 | T   |
|           | SHEsis   | general  | 1.47 | c2_25471 | 10  | 48808 | 0.000000 | 6.94 | 4.55 | T   |
|           | SHEsis   | general  | 1.47 | c2_53380 | 1   | 70371 | 0.000000 | 6.46 | 4.55 | T   |
|           | SHEsis   | general  | 1.47 | c1_16351 | 10  | 48761 | 0.000004 | 5.45 | 4.55 | T   |
|           | SHEsis   | general  | 1.47 | c2_45606 | 10  | 48218 | 0.000004 | 5.38 | 4.55 | T   |
|           | SHEsis   | general  | 1.47 | c2_45611 | 10  | 48203 | 0.000010 | 4.98 | 4.55 | T   |
|           | SHEsis   | general  | 1.47 | c1_8021  | 10  | 48862 | 0.000012 | 4.93 | 4.55 | T   |
|           | SHEsis   | general  | 1.47 | c2_54811 | 1   | 46270 | 0.000014 | 4.86 | 4.55 | T   |
|           | TASSEL   | additive | 0.86 | c2_16999 | 8   | 54838 | 0.000247 | 3.61 | 3.89 | F   |
|           | TASSEL   | additive | 0.86 | c2_16998 | 8   | 54838 | 0.000329 | 3.48 | 3.89 | F   |
|           | TASSEL   | additive | 0.86 | c2_12125 | 1   | 71450 | 0.003287 | 2.48 | 3.89 | F   |
|           | TASSEL   | additive | 0.86 | c1_16001 | 10  | 47539 | 0.006105 | 2.21 | 3.89 | F   |
|           | TASSEL   | additive | 0.86 | c2_3680  | 11  | 39908 | 0.006701 | 2.17 | 3.89 | F   |
|           | TASSEL   | additive | 0.86 | c2_46195 | 1   | 64259 | 0.007116 | 2.15 | 3.89 | F   |
|           | TASSEL   | additive | 0.86 | c2_40954 | 1   | 63756 | 0.011097 | 1.95 | 3.89 | F   |
|           | TASSEL   | additive | 0.86 | c2_45606 | 10  | 48218 | 0.011369 | 1.94 | 3.89 | F   |
|           | TASSEL   | additive | 0.86 | c2_45611 | 10  | 48203 | 0.012091 | 1.92 | 3.89 | F   |

