Anaquin: TransQuin Report

Contents

TransQuin Alignment	3
Alignment summary statistics for: A1	. 3
Alignment summary statistics for: A2	. 5
Alignment summary statistics for: A3	. 6
Alignment summary statistics for: B1	. 7
Alignment summary statistics for: B2	. 8
Alignment summary statistics for: B3	. 9
Alignment sequin statistics for: A1	. 10
Alignment sequin statistics for: A2	. 12
Alignment sequin statistics for: A3	. 14
Alignment sequin statistics for: B1	. 16
Alignment sequin statistics for: B2	. 18
Alignment sequin statistics for: B3	. 20
Transcriptome Analysis	22
Transcriptome Analysis	
	23
	23
TransQuin Expression (Gene)	23 . 23
TransQuin Expression (Gene) Expression summary statistics for: A1	23 . 23 . 24
TransQuin Expression (Gene) Expression summary statistics for: A1	23 . 23 . 24 . 25
TransQuin Expression (Gene) Expression summary statistics for: A1	23 . 23 . 24 . 25 . 26
TransQuin Expression (Gene) Expression summary statistics for: A1	23 23 24 25 26 27
TransQuin Expression (Gene) Expression summary statistics for: A1	23 . 23 . 24 . 25 . 26 . 27 . 28
TransQuin Expression (Gene) Expression summary statistics for: A1 Expression summary statistics for: A2 Expression summary statistics for: A3 Expression summary statistics for: B1 Expression summary statistics for: B2 Expression summary statistics for: B3	23 24 25 26 27 28 29
TransQuin Expression (Gene) Expression summary statistics for: A1 Expression summary statistics for: A2 Expression summary statistics for: A3 Expression summary statistics for: B1 Expression summary statistics for: B2 Expression summary statistics for: B3 Expression scatter plot for: A1	23 . 24 . 25 . 26 . 27 . 28 . 29 . 30
TransQuin Expression (Gene) Expression summary statistics for: A1 Expression summary statistics for: A2 Expression summary statistics for: A3 Expression summary statistics for: B1 Expression summary statistics for: B2 Expression summary statistics for: B3 Expression scatter plot for: A1 Expression scatter plot for: A2	23 24 25 26 27 28 30 31
TransQuin Expression (Gene) Expression summary statistics for: A1 Expression summary statistics for: A2 Expression summary statistics for: A3 Expression summary statistics for: B1 Expression summary statistics for: B2 Expression summary statistics for: B3 Expression scatter plot for: A1 Expression scatter plot for: A2 Expression scatter plot for: A3	23 24 25 26 27 28 30 31 32
TransQuin Expression (Gene) Expression summary statistics for: A1 Expression summary statistics for: A2 Expression summary statistics for: A3 Expression summary statistics for: B1 Expression summary statistics for: B2 Expression summary statistics for: B3 Expression scatter plot for: A1 Expression scatter plot for: A2 Expression scatter plot for: A3 Expression scatter plot for: B1	23 24 25 26 27 28 29 30 31 32 33

Γ	TransQuin Differential		
	Differential summary statistics	36	
	ROC plot	37	
	MA plot	38	
	LODR plot	39	

TransQuin Alignment

Gene: 0.052632

Alignment summary statistics for: A1

Summary for dataset: A1/TransAlign_summary.stats Unmapped: 0 reads Experiment: 6635268 (21.5363%) reads Synthetic: 24174356 (78.4637%) reads Reference: 1190 exons Reference: 1028 introns Reference: 149219 bases Query: 59421555 exons Query: 24855847 introns Query: 163383 bases Dilution: 0.784637 *** The following statistics are computed at the exon, intron and base level. *** Exon level is defined by performance per exon. An alignment that *** is not mapped entirely within an exon is considered as a FP. The *** intron level is similar. *** *** Base level is defined by performance per nucleotide. A partial *** mapped read will have FP and TP. ----- Exon level ------Sensitivity: 0.994958 Specificity: 0.973343 Detection: 0.0590086 (R2_33) ----- Intron level -----Sensitivity: 0.991245 Specificity: 0.821653 Detection: 0.0590086 (R2_33) ----- Base level -----Sensitivity: 0.692468 Specificity: 0.924613 Detection: 0.0590086 (R2_33) ----- Undetected -----Exon: 0.005042 Intron: 0.008755

Alignment summary statistics for: A2

Summary for dataset: A2/TransAlign_summary.stats Unmapped: 0 reads Experiment: 5742035 (20.4187%) reads Synthetic: 22379420 (79.5813%) reads Reference: 1190 exons Reference: 1028 introns Reference: 149219 bases Query: 55184443 exons Query: 24887760 introns Query: 163986 bases Dilution: 0.795813 *** The following statistics are computed at the exon, intron and base level. *** *** Exon level is defined by performance per exon. An alignment that *** is not mapped entirely within an exon is considered as a FP. The *** intron level is similar. *** *** Base level is defined by performance per nucleotide. A partial *** mapped read will have FP and TP. *** ----- Exon level ------Sensitivity: 0.996639 Specificity: 0.975178 Detection: 0.0590086 (R2_33) ----- Intron level -----Sensitivity: 0.991245 Specificity: 0.763722 Detection: 0.0590086 (R2_33) ----- Base level -----Sensitivity: 0.693059 Specificity: 0.921999 Detection: 0.0590086 (R2 33) ----- Undetected -----Exon: 0.003361 Intron: 0.008755 Gene: 0.039474

Alignment summary statistics for: A3

Summary for dataset: A3/TransAlign_summary.stats Unmapped: 0 reads Experiment: 5803436 (21.0203%) reads Synthetic: 21805238 (78.9797%) reads Reference: 1190 exons Reference: 1028 introns Reference: 149219 bases Query: 53748651 exons Query: 22830699 introns Query: 166153 bases Dilution: 0.789797 *** The following statistics are computed at the exon, intron and base level. *** *** Exon level is defined by performance per exon. An alignment that *** is not mapped entirely within an exon is considered as a FP. The *** intron level is similar. *** *** Base level is defined by performance per nucleotide. A partial *** mapped read will have FP and TP. *** ----- Exon level ------Sensitivity: 0.996639 Specificity: 0.974466 Detection: 0.0590086 (R2_33) ----- Intron level -----Sensitivity: 0.992218 Specificity: 0.811167 Detection: 0.0590086 (R2_33) ----- Base level -----Sensitivity: 0.695741 Specificity: 0.913495 Detection: 0.0590086 (R2_33) ----- Undetected -----Exon: 0.003361 Intron: 0.007782 Gene: 0.039474

Alignment summary statistics for: B1

Summary for dataset: B1/TransAlign_summary.stats Unmapped: 0 reads Experiment: 3564555 (14.1897%) reads Synthetic: 21556180 (85.8103%) reads Reference: 1190 exons Reference: 1028 introns Reference: 149219 bases Query: 57069428 exons Query: 26914113 introns Query: 158601 bases Dilution: 0.858103 *** The following statistics are computed at the exon, intron and base level. *** *** Exon level is defined by performance per exon. An alignment that *** is not mapped entirely within an exon is considered as a FP. The *** intron level is similar. *** *** Base level is defined by performance per nucleotide. A partial *** mapped read will have FP and TP. *** ----- Exon level ------Sensitivity: 0.992437 Specificity: 0.981463 Detection: 0.0590086 (R2_33) ----- Intron level -----Sensitivity: 0.986381 Specificity: 0.880564 Detection: 1.88828 (R1_72) ----- Base level -----Sensitivity: 0.685079 Specificity: 0.942327 Detection: 0.0590086 (R2 33) ----- Undetected -----Exon: 0.007563 Intron: 0.013619 Gene: 0.065789

Alignment summary statistics for: B2

Summary for dataset: B2/TransAlign_summary.stats Unmapped: 0 reads Experiment: 3673262 (14.5259%) reads Synthetic: 21614486 (85.4741%) reads Reference: 1190 exons Reference: 1028 introns Reference: 149219 bases Query: 57264502 exons Query: 28885125 introns Query: 160649 bases Dilution: 0.854741 *** The following statistics are computed at the exon, intron and base level. *** *** Exon level is defined by performance per exon. An alignment that *** is not mapped entirely within an exon is considered as a FP. The *** intron level is similar. *** *** Base level is defined by performance per nucleotide. A partial *** mapped read will have FP and TP. *** ----- Exon level ------Sensitivity: 0.994118 Specificity: 0.981653 Detection: 0.0590086 (R2_33) ----- Intron level -----Sensitivity: 0.984436 Specificity: 0.818059 Detection: 0.0590086 (R2_33) ----- Base level -----Sensitivity: 0.687879 Specificity: 0.934117 Detection: 0.0590086 (R2 33) ----- Undetected -----Exon: 0.005882 Intron: 0.015564 Gene: 0.052632

Alignment summary statistics for: B3

Summary for dataset: B3/TransAlign_summary.stats Unmapped: 0 reads Experiment: 4705904 (15.6992%) reads Synthetic: 25269549 (84.3008%) reads Reference: 1190 exons Reference: 1028 introns Reference: 149219 bases Query: 67685272 exons Query: 37139930 introns Query: 162712 bases Dilution: 0.843008 *** The following statistics are computed at the exon, intron and base level. *** *** Exon level is defined by performance per exon. An alignment that *** is not mapped entirely within an exon is considered as a FP. The *** intron level is similar. *** *** Base level is defined by performance per nucleotide. A partial *** mapped read will have FP and TP. *** ----- Exon level ------Sensitivity: 0.994958 Specificity: 0.980831 Detection: 0.0590086 (R2_33) ----- Intron level -----Sensitivity: 0.986381 Specificity: 0.759454 Detection: 0.0590086 (R2_33) ----- Base level -----Sensitivity: 0.688292 Specificity: 0.922827 Detection: 0.0590086 (R2 33) ----- Undetected -----Exon: 0.005042 Intron: 0.013619 Gene: 0.052632

Alignment sequin statistics for: A1

Summary for dataset: A1/TransAlign_quins.stats

```
ID Covered Sensitivity (Exon) Specificity (Exon) Sensitivity (Intron)
                                                                             Specificity (Intron)
R1 101 0.847694
                    1
                        0.999322
                                    1
                                                         0.998974
                                        1
                                            0.847694
R1_102 0.721248
                        0.996879
                    1
                                    1
                                        0.11205 0.721248
                                                             0.998544
R1_103
       0.628255
                    1
                        0.996404
                                    1
                                        0.872516
                                                     0.628255
                                                                 0.994737
R1_11
        0.645161
                        0.999251
                                    1
                                        0.0622323
                                                     0.645161
                    1
                                                                 0.996885
R1_12
        0.590941
                        0.995265
                                    1
                                        0.998603
                                                     0.590941
                                                                 0.996501
R1_13
        0.920773
                        0.992209
                                    0.909091
                                                 0.939559
                                                             0.920773
                                                                         0.994269
                    1
R1 14
                                    0.995502
            0.999757
                        -- -- 1
                                                 1
R1_21
       0.630945
                        0.997646
                                        0.91334 0.630945
                                                             0.942446
                                    1
                    1
                                                 0.528959
R1 22
        0.528959
                        0.9983 1
                                    0.0595461
                                                             0.993203
R1_23
                                         0.00824358 0.608847
        0.608847
                    1
                        0.994273
                                    1
                                                                 0.997717
R1_24
            1
                0.995671
                            1
                                0.998218
                                             1
                                                 0.997168
        1
                                                     0.688293
R1_31
                    1
                        0.995361
                                    1
                                        0.179726
        0.688293
                                                                 0.994565
R1 32
       0.545455
                        0.996002
                                         0.997528
                                                     0.545455
                                                                 0.990536
                                    1
R1_33
                    0.994233
       0.88324 1
                                1
                                    0.997701
                                                 0.88324 0.998997
                    0.996444
R1_41
       0.78125 1
                                1
                                    0.950421
                                                 0.78125 0.994695
R1_42
       0.617479
                    1
                        0.982642
                                    1
                                        0.89545 0.617479
                                                             0.986842
R1_43
        0.526611
                    0.975
                            0.99293 0.973684
                                                 0.96402 0.526611
                                                                     0.995551
R1_51
                                        0.999144
        0.607666
                        0.996623
                                    1
                                                     0.607666
                                                                 0.992634
                    1
                    0.994545
R1_52
                                        0.6209 0.970203
        0.6209 1
                                    1
                                1
R1_53
        0.998489
                    1
                        0.998138
                                     1
                                        0.567302
                                                     0.998489
                                                                 0.997485
R1_61
        0.686144
                        1
                            1
                                1
                                    0.686144
                                                 1
                    1
R1_62
                                    0.776233
        0.776233
                            1
                                1
R1_63
        0.669964
                        0.997411
                                        0.987252
                                                     0.669964
                                                                 0.99536
                    1
                                     1
R1 71
                        0.989782
                                        0.996867
                                                     0.740968
                                                                 0.985685
        0.740968
                                    1
R1 72
        0.605418
                                    0.605418
                    1
                        1
                            1
                                1
R1_73
        0.731952
                    1
                        0.990579
                                    1
                                        0.988759
                                                     0.731952
                                                                 0.996297
                        0.996933
R1_81
       0.746457
                                    1
                                        0.996006
                                                     0.746457
                                                                 0.996322
                    1
R1_82
        0.587741
                        0.991724
                                        0.993417
                                                     0.587741
                                                                 0.993612
R1_83
                        0.998035
                                        0.997838
                                                     0.644813
       0.644813
                                                                 0.997018
                    1
                                    1
R1 91
       0.683772
                        1 1 1
                                    0.683772
                    1
                                                 1
R1_92
       0.777496
                    1
                        0.990108
                                    1
                                        0.997403
                                                     0.777496
                                                                 0.995127
R1_93
        0.625086
                    1
                        0.995626
                                        0.997761
                                                     0.625086
                                                                 0.997251
R2_1
                        0.996985
                                        0.996985
            1
                                    1
        1
R2_105
                        -- -- 0.874667
                                             0.99696 0.874667
       1
            0.942857
R2_115
                                                     0.837412
       0.837412
                        0.992879
                                    1
                                        0.996245
                                                                 0.922708
                    1
R2 116
                        0.996656
       0.584726
                                    1
                                        1
                                            0.584726
                                                         0.997557
R2_117
       0.710041
                        0.997963
                    1
                                    1
                                        0.986627
                                                     0.710041
                                                                 0.99569
R2_14
        0.719569
                    1
                        0.986972
                                    1
                                        0.948655
                                                     0.719569
                                                                 0.991507
R2_150
                        0.996211
                                         0.599452
       0.834679
                                    1
                                                     0.834679
                                                                 0.991777
R2_151
       0.573928
                        0.97485 1
                                    0.00142271 0.573928
                                                             0.994693
                    1
R2 152
                    0.997882
                                    0.017786
                                                 0.60288 0.99798
       0.60288 1
                                1
R2 153
       0.671455
                    1
                        0.995719
                                    1
                                         1
                                            0.671455
                                                         0.99909
R2 154
       0.855658
                        0.988294
                                         0.641379
                                                     0.855658
                                                                 0.993964
R2_18
        0.628326
                        0.984616
                                        0.92933 0.628326
                                                             0.985276
                                    1
                    1
R2_19
        0.811493
                        0.992047
                                    1
                                        0.947606
                                                     0.811493
                                                                 0.998147
                    1
R2_20
       0.732411
                        0.998754
                                    1
                                             0.732411
                                                         0.997905
                    1
                                        1
R2 24
       0.586003
                    0.979592
                                0.994692
                                             0.957447
                                                         1
                                                             0.586003
                                                                         0.998491
R2 26
                                        0.985066
                                                                 0.997941
       0.916294
                        0.995692
                                    1
                                                     0.916294
                    1
R2_27
        0.754464
                        0.998102
                                    1
                                        1
                                            0.754464
                                                         0.999212
```

```
R2 28
     0.685301 1 1 1 1 0.685301 1
     0.669025 1 0.986915 1 1 0.669025 0.998623
R2 32
R2 33 0.879859 1 1 1 0.000207469 0.879859 1
R2_37 0.724904 1 0.994058 1 0.994505 0.724904 0.999687
R2_41 0.838456 1 0.99339 1 0.995872 0.838456 0.967423
R2 42 0.883333 1 0.997452 1 1 0.883333 0.999123
R2_45 0.464239 1 1 1 1 0.464239 1
R2_46  0.706554  1  0.988095  1  0.984375  0.706554  0.96668
R2_47  0.888126  1  0.996247  1  0.997381  0.888126  0.998676
R2_57  0.64724 1  0.996649  1  0.00781695  0.64724  0.998809
R2_59
     0.702025 1 0.995992 1 0.989247 0.702025 0.98913
R2_6
R2_60
     0.883925 1 0.988671 1 0.98321 0.883925 0.996051
R2 63
R2_65 1 1 -- -- 0.995595 1 0.995595
R2_66 0.529254 1 0.992772 1 0.999104
                                0.529254 0.985015
R2_67 0.959847 1 1 1 1 0.959847 1
R2 68 0.699062 1 0.99951 1 1 0.699062 0.999681
R2_7
     0.76132 1 0.998183 1 0.999392 0.76132 0.996124
R2_71 0.822193 1 0.991979 1 1 0.822193 0.999188
R2 72 0.343281 0.866667 0.987707 0.727273 1 0.343281 0.998704
R2_73  0.931968  1  0.997207  1  0.998643  0.931968  0.999512
R2_76  0.472826  1  0.997807  1  1  0.472826  0.999234
```

Alignment sequin statistics for: A2

Summary for dataset: A2/TransAlign_quins.stats

```
ID Covered Sensitivity (Exon) Specificity (Exon)
                                                     Sensitivity (Intron)
                                                                              Specificity (Intron)
R1 101 0.842472
                        0.997743
                                         0.994398
                                                     0.842472
                                                                  0.998968
                    1
                                     1
                                     0.00745621 0.72195 0.998061
R1_102 0.72195 1
                    0.996092
                                1
R1_103
       0.629363
                    1
                        0.996332
                                     1
                                         0.190876
                                                     0.629363
                                                                  0.995182
R1_11
        0.645833
                        0.999611
                                     1
                                         0.0609563
                                                     0.645833
                                                                  0.99896
                    1
R1_12
        0.591632
                        0.996195
                                     1
                                         0.999449
                                                     0.591632
                                                                  0.997668
R1_13
        0.920773
                        0.99341 0.909091
                                             0.689422
                                                                      0.994676
                                                          0.920773
                    1
                                     0.994012
R1 14
            0.999704
                        -- -- 1
                                                 1
R1_21
        0.630945
                                     0.94016 0.630945
                                                         0.940754
                    1
                        0.99783 1
R1 22
        0.528959
                        0.99921 1
                                     0.0886522
                                                 0.528959
                                                              0.995741
R1_23
        0.605016
                    1
                        0.990962
                                     1
                                         0.0131643
                                                     0.605016
                                                                  0.996558
R1_24
            1
                0.995808
                             1
                                0.994776
                                             1
                                                 0.99782
        1
R1_31
                    1
                        0.994005
                                     1
                                         0.99822 0.689234
                                                              0.995248
        0.689234
R1 32
        0.545455
                        0.996609
                                         1
                                             0.545455
                                                          0.99472
                    1
                                     1
R1_33
                                             0.911913
        0.911913
                    1
                        0.997009
                                     1
                                         1
                                                          0.999028
                    0.996615
R1_41
        0.78125 1
                                1
                                     0.984857
                                                 0.78125 0.995575
R1_42
        0.617479
                    1
                        0.983941
                                     1
                                         0.918226
                                                     0.617479
                                                                  0.990854
R1_43
        0.526611
                    0.975
                                         0.973684
                                                     0.970546
                                                                              0.995551
                            0.992939
                                                                  0.526611
R1_51
                                         0.995538
        0.607103
                        0.995561
                                                     0.607103
                                                                  0.993542
                    1
                                     1
R1_52
        0.623951
                    1
                        0.986547
                                     1
                                         0.993277
                                                     0.623951
                                                                  0.970344
R1_53
        0.997986
                        0.995796
                                     1
                                         0.998658
                                                     0.997986
                                                                  0.996982
R1_61
        0.687813
                        0.996259
                                     1
                                         0.00393677
                                                     0.687813
                                                                  0.997579
                    1
R1_62
        0.766119
                        0.990741
                                     1
                                         0.00177231 0.766119
                                                                  0.999176
                                                     0.670224
R1_63
        0.670224
                        0.997749
                                         0.982678
                                                                  0.994977
                    1
                                     1
R1 71
                        0.990143
                                         0.965202
                                                     0.740968
                                                                  0.986694
        0.740968
                    1
                                     1
R1 72
        0.6 1
                        0.000771367 0.6 1
                    1
R1_73
        0.731952
                    1
                        0.990777
                                     0.96
                                             0.594568
                                                          0.731952
                                                                      0.996014
R1_81
        0.74685 1
                    0.997109
                                     0.994664
                                                 0.74685 0.996847
                                 1
R1_82
        0.587741
                    1
                        0.989888
                                     1
                                         0.996501
                                                     0.587741
                                                                  0.993612
R1_83
                                         0.998462
        0.644427
                        0.998518
                                                     0.644427
                                                                  0.996422
                                     1
                    1
R1 91
        0.68762 1
                            1
                                0.68762 1
                    1
                        1
R1_92
        0.779611
                    1
                        0.989036
                                     1
                                         0.997001
                                                     0.779611
                                                                  0.99514
R1_93
        0.625775
                        0.996087
                                         0.997967
                                                     0.625775
                                                                  0.997254
R2_1
                        0.990955
                                         0.990955
            1
        1
                                     1
R2_105
            1
                        0.690667
                                         0.690667
        1
                                     1
R2_115
                        0.993099
                                         0.995773
       0.840131
                                                     0.840131
                                                                  0.992293
                    1
                                     1
R2 116
                    0.995198
                                         0.52506 0.998185
       0.52506 1
                                1
                                     1
R2_117
                        0.997799
                                         0.986683
                                                     0.711066
                                                                  0.995696
        0.711066
                    1
                                     1
R2_14
        0.719569
                    1
                        0.987726
                                     1
                                         0.762312
                                                     0.719569
                                                                  0.990981
R2_150
                                                     0.835448
                                                                  0.991785
        0.835448
                        0.997498
                                     1
                                         0.637765
R2_151
        0.559055
                        0.993207
                                         0.00185397
                                                     0.559055
                                                                  0.999218
                                     1
                    1
R2 152
                        0.998542
                                                     0.602636
        0.602636
                    1
                                     1
                                         0.0249012
                                                                  0.998383
R2 153
        0.679707
                    1
                        1
                            1
                                     0.679707
                                1
                                                 1
R2 154
        0.855658
                        0.991999
                                     1
                                         0.752922
                                                     0.855658
                                                                  0.994631
R2_18
        0.628326
                        0.98195 1
                                     0.952684
                                                 0.628326
                                                              0.986486
R2_19
        0.811493
                        0.991557
                                         0.412105
                                                     0.811493
                                                                  0.99829
                                     1
                                                 0.732795
R2_20
        0.732795
                        0.9974 1
                                     0.997538
                                                              0.997906
                    1
R2 24
        0.585856
                    0.979592
                                0.991346
                                             0.957447
                                                          1
                                                              0.585856
                                                                          0.997737
R2 26
                                                                  0.997568
        0.916638
                        0.995474
                                     1
                                         0.994598
                                                     0.916638
                    1
R2_27
        0.752381
                        0.996593
                                     1
                                         1
                                             0.752381
                                                         0.999209
```

```
R2 28
       0.686747 1 0.992133 1 1 0.686747 0.979381
       0.671486 1 0.988811 1 0.995984 0.671486 0.997715
R2 32
R2 33 0.922261 1 1 1 1 0.922261 1
R2_37 0.725357 1 0.994978 1 1 0.725357 0.996265
R2_41 0.839171 1 0.994146 1 0.995818 0.839171 0.990299
R2 42 0.871318 1 0.998773 1 0.996774 0.871318 0.999555
R2_45  0.464239  1  0.99862 1  0.998657  0.464239  0.999378
       0.705051 1 0.994681 1 1 0.705051 0.967409
R2 46
R2_53  0.39093 1  0.998503  1  1  0.39093 0.999542

      R2_54
      0.864703
      1
      0.992071
      1
      0.99359
      0.864703
      0.997446

      R2_55
      0.880111
      1
      0.990367
      1
      0.877687
      0.880111
      0.987558

      R2_57
      0.659591
      1
      0.997113
      1
      0.00776074
      0.659591
      0.93286

       0.60449 1 0.999487 1 1 0.60449 0.999733
R2_59

      0.693346
      1
      0.997899
      1
      1
      0.693346
      0.997226

      0.604692
      1
      0.999074
      1
      0.00876215
      0.604692
      0.998239

R2_6
R2_60
       0.86509 1 0.986341 0.666667 0.984241 0.86509 0.996971
R2 63
R2_65 1 1 -- -- 0.995595 1 0.995595
R2_66 0.529254 1 0.993527 1 0.998951 0.529254 0.986987
R2_67 0.988528 1 1 1 1 0.988528 1
R2 68
       0.717828 1 0.99418 1 1 0.717828 0.999689
R2_7
       0.76132 1 0.997537 1 0.998989 0.76132 0.996124
R2_71 0.808155 1 0.995012 1 0.993478 0.808155 0.998348
R2 72 0.341203 0.866667 0.991131 0.727273 1 0.341203 0.99913
R2 73 0.950171 1 0.994921 1 0.99508 0.950171 0.999282
R2_76  0.475725  1  0.996596  1  1  0.475725  0.998479
```

Alignment sequin statistics for: A3

Summary for dataset: A3/TransAlign_quins.stats

```
ID Covered Sensitivity (Exon) Specificity (Exon)
                                                      Sensitivity (Intron)
                                                                               Specificity (Intron)
R1 101
       0.843342
                    1
                         0.998545
                                     1
                                                          0.998969
                                         1
                                             0.843342
                                         0.0275419
R1 102
        0.724404
                    1
                         0.996659
                                     1
                                                      0.724404
                                                                  0.998068
R1_103
                                                  0.629086
        0.629086
                    1
                         0.99598 1
                                     0.466926
                                                              0.99518
R1_11
        0.646505
                         0.999213
                                     1
                                         0.0613864
                                                      0.646505
                                                                  0.998962
                    1
R1_12
        0.591978
                         0.996492
                                     1
                                         0.999063
                                                      0.591978
                                                                  0.998833
R1_13
        0.921152
                         0.992714
                                     0.909091
                                                  0.927537
                                                              0.921152
                                                                           0.994272
                    1
                                     0.996997
R1 14
            0.999661
                         -- -- 1
                                                  1
R1_21
        0.630945
                         0.997923
                                         0.932742
                                                      0.630945
                                                                  0.941599
                    1
                                     1
                                                                  0.99659
R1 22
        0.528959
                         0.999234
                                     1
                                         0.0715257
                                                      0.528959
R1_23
                                         0.00939993 0.610589
        0.610589
                    1
                         0.991844
                                     1
                                                                  0.996023
R1_24
                0.995729
                             1
                                 0.997156
                                             1
                                                  0.997168
        1
            1
R1_31
                         0.993699
                                     1
                                         0.998371
                                                      0.688764
                                                                  0.995245
        0.688764
                    1
R1 32
        0.545455
                         0.996925
                                         0.997249
                                                      0.545455
                                                                  0.992624
                    1
                                     1
R1_33
                                         0.998975
        0.911913
                    1
                         0.995448
                                     1
                                                      0.911913
                                                                  0.998705
R1_41
        0.78125 1
                    0.996329
                                 1
                                     0.949202
                                                  0.78125 0.995575
R1_42
        0.617479
                    1
                         0.986143
                                     1
                                         0.911049
                                                      0.617479
                                                                  0.990854
R1_43
        0.526611
                    0.975
                                         0.973684
                                                      0.971656
                                                                  0.526611
                                                                               0.995892
                             0.993215
R1_51
        0.607103
                         0.996125
                                         0.993582
                                                      0.607103
                                                                  0.993542
                    1
                                     1
R1_52
                                         0.996644
        0.624333
                    1
                         0.991891
                                     1
                                                      0.624333
                                                                  0.968639
R1_53
        0.999496
                         0.995838
                                     1
                                         0.894373
                                                      0.999496
                                                                  0.997487
R1_61
        0.705342
                         0.996028
                                     1
                                         0.030201
                                                      0.705342
                                                                  0.998818
                    1
R1_62
        0.774968
                         0.996558
                                     1
                                         0.0173625
                                                      0.774968
                                                                  0.999185
R1_63
        0.669703
                         0.997245
                                         0.984976
                                                      0.669703
                                                                  0.995743
                    1
                                     1
R1 71
                         0.993089
                                         0.991204
                                                      0.740968
                                                                  0.985685
        0.740968
                                     1
R1 72
        0.604966
                                 0.0175711
                                             0.604966
                    1
                         1
                             1
                                                          1
R1_73
        0.731534
                    1
                         0.986479
                                     0.96
                                             0.869319
                                                          0.731534
                                                                      0.996295
R1_81
        0.746457
                        0.996425
                                     1
                                         0.258511
                                                      0.746457
                                                                  0.996845
                    1
R1_82
        0.587741
                         0.995206
                                     1
                                         0.978119
                                                      0.587741
                                                                  0.993612
R1_83
        0.644427
                         0.99821 1
                                     0.997789
                                                  0.644427
                                                              0.998805
                    1
R1 91
        0.681206
                             1
                                     0.681206
                    1
                         1
                                 1
                                                  1
                                                                  0.99565
R1_92
        0.774535
                    1
                         0.988785
                                     1
                                         0.997123
                                                      0.774535
R1_93
        0.625775
                    1
                         0.997114
                                     1
                                         0.998507
                                                      0.625775
                                                                  0.997254
R2_1
                         0.99598 1
                                     0.99598
            1
        1
R2_105
            0.965517
                         -- -- 0.930667
                                             0.994302
                                                          0.930667
        1
R2_115
                                     0.997013
        0.837412
                         0.99224 1
                                                  0.837412
                                                              0.922708
                    1
R2 116
                         0.996341
        0.582339
                                     1
                                         1
                                             0.582339
                                                          0.997547
R2_117
        0.710041
                         0.99923 1
                                     0.998468
                                                  0.710041
                                                              0.997122
                    1
R2_14
        0.719569
                    1
                         0.987344
                                     1
                                         0.913125
                                                      0.719569
                                                                  0.991507
R2_150
        0.835832
                         0.996781
                                         0.569783
                                     1
                                                      0.835832
                                                                  0.996334
R2_151
        0.588364
                         0.990961
                                         0.00205912
                                                     0.588364
                                     1
                                                                  0.997035
                    1
R2 152
                         0.998972
                                                      0.605321
        0.605321
                    1
                                     1
                                         0.0178198
                                                                  0.997586
R2 153
        0.684902
                    1
                         0.995235
                                     1
                                         0.998407
                                                      0.684902
                                                                  0.998663
R2 154
        0.855658
                         0.988085
                                     1
                                         0.643553
                                                      0.855658
                                                                  0.994631
                                                  0.628326
R2_18
        0.628326
                         0.98154 1
                                     0.932426
                                                              0.986486
                    1
R2_19
        0.811493
                         0.990813
                                         0.706767
                                                      0.811493
                                                                  0.99829
                                     1
                                                                  0.996347
R2_20
        0.733948
                         0.998507
                                     1
                                         0.998241
                                                      0.733948
                    1
R2 24
        0.586594
                    0.979592
                                 0.9931 0.957447
                                                      1
                                                          0.586594
                                                                      0.998743
R2 26
                                                      0.916294
        0.916294
                         0.995585
                                     1
                                         0.994024
                                                                  0.997754
                    1
R2_27
        0.755952
                         0.995752
                                     1
                                         1
                                             0.755952
                                                          0.998035
```

```
R2 28
R2_32
      0.671486 1 0.991023 1 1 0.671486 0.998171
R2 33 0.961131 1 0.916667 1 1 0.961131 0.992701
R2_37 0.727623 1 0.994605 1 0.997226 0.727623 0.997515
R2_38  0.398484  1  0.99778  1  1  0.398484  0.998348
R2 42 0.884884 1 0.99882 1 1 0.884884 0.949667
R2_45  0.464384  1  0.99941 1  0.999372  0.464384  0.999067
R2_46 0.719784 1 0.992964 1 1 0.719784 0.967664
R2_47 0.888714 1 0.996164 1 0.869457 0.888714 0.998456
R2_53 0.391647 1 0.996204 1 0.995389 0.391647 0.997262
0.592539 \qquad 1 \qquad 0.996507 \qquad 1 \qquad 0.997951 \qquad 0.592539 \qquad 0.998639
R2_59

      0.700096
      1
      0.996782
      1
      0.996937
      0.700096
      0.995885

      0.605759
      1
      0.998467
      1
      0.0137983
      0.605759
      0.998243

R2_6
R2_60
R2 63
      0.884363 1 0.986952 1 0.981729 0.884363 0.997037
R2_65 1 1 -- -- 0.994493 1 0.994493
R2_66  0.529254  1  0.99313  1  0.998672  0.529254  0.985015
R2_67 0.971319 1 1 1 1 0.971319 1
R2 68 0.717828 1 0.996276 1 0.997953 0.717828 0.999378
R2_7
     0.76132 1 0.997977 1 0.999136 0.76132 0.996124
R2_71 0.916444 1 0.991426 1 0.989924 0.916444 0.998543
R2 72 0.347439 0.866667 0.992315 0.727273 1 0.347439 0.997017
R2_73  0.928328  1  0.996213  1  0.995682  0.928328  0.998776
R2_76  0.473551  1  0.996066  1  1  0.473551  0.998472
```

Alignment sequin statistics for: B1

Summary for dataset: B1/TransAlign_quins.stats

```
ID Covered Sensitivity (Exon) Specificity (Exon) Sensitivity (Intron)
                                                                             Specificity (Intron)
R1 101 0.798085
                    1
                        0.996503
                                    1
                                        1
                                            0.798085
                                                        0.998911
R1 102 0.719144
                    1
                        0.994911
                                    1
                                        0.0477612
                                                    0.719144
                                                                 0.998054
R1_103
       0.627978
                    1
                        0.992949
                                    1
                                        0.877408
                                                    0.627978
                                                                 0.996046
                                0.0383237
R1_11
        0.644489
                        1
                                            0.644489
                    1
                            1
                                                        1
R1_12
        0.570194
                        0.993312
                                    1
                                        0.994968
                                                    0.570194
                                                                 0.998184
R1_13
        0.921152
                        0.988876
                                    0.909091
                                                0.986406
                                                             0.921152
                                                                         0.993865
                    1
R1 14
                        -- -- 0.998494
                                            0.996992
                                                        0.998494
           0.999785
R1_21
       0.630945
                        0.997942
                                    1
                                        0.922412
                                                    0.630945
                                                                 0.942446
                    1
R1 22
        0.525339
                        1 1
                                0.00512173 0.525339
                                                        1
R1_23
                                        0.00775832 0.609892
        0.609892
                    1
                        0.990422
                                    1
                                                                 0.996585
R1_24
        0.999782
                        0.997355
                                    1
                                        0.99911 0.999782
                                                             0.997819
                    1
                        0.993387
R1_31
       0.688764
                                        0.997399
                                                    0.688764
                                                                 0.991875
                    1
                                    1
R1 32
       0.541401
                            1
                                    0.541401
                    1
                                1
                                                1
R1_33
                        0.996101
       0.901271
                    1
                                    1
                                        1
                                            0.901271
                                                        0.999017
R1_41
        0.78125 1
                    0.999389
                                1
                                    0.975044
                                                0.78125 0.996457
R1_42
       0.617479
                    1
                        0.992588
                                    1
                                        0.880227
                                                    0.617479
                                                                 0.990854
R1_43
        0.52643 0.975
                        0.992495
                                    0.973684
                                                0.701694
                                                             0.52643 0.994868
R1_51
        0.604848
                        0.998724
                                        0.341777
                                                    0.604848
                                                                 0.996286
                    1
                                    1
R1_52
        0.622807
                    1
                        0.994452
                                    1
                                        0.996778
                                                    0.622807
                                                                 0.998166
R1_53
        0.998489
                        0.996504
                                    1
                                        0.186155
                                                    0.998489
                                                                 0.996482
R1_61
        0.69783 1
                        1
                            0.893617
                                        0.69783 1
                    1
R1_62
                                        0.70354 1
        0.70354 1
                    1
                            0.855072
R1_63
        0.670484
                        0.997312
                                        0.942241
                                                                 0.995363
                    1
                                    1
                                                    0.670484
R1 71
       0.740968
                        0.98966 1
                                    0.969902
                                                             0.986694
                                                0.740968
R1 72
       0.578781
                                0.777778
                                            0.578781
                    1
                        1
                            1
                                                        1
R1_73
        0.731325
                    1
                        0.99004 0.96
                                        0.996528
                                                    0.731325
                                                                 0.997432
R1_81
       0.747244
                    1
                        0.996751
                                    1
                                        0.992513
                                                    0.747244
                                                                 0.997897
R1_82
        0.587741
                        0.993087
                                        0.988905
                                                    0.587741
                                                                 0.991501
                                    1
R1_83
       0.647898
                        0.997868
                                        0.99442 0.647898
                                                             0.998217
                    1
                                    1
R1 91
       0.682489
                        1 1 1
                                    0.682489
                    1
                                                1
R1_92
       0.777073
                    1
                        0.989744
                                    1
                                        0.997185
                                                    0.777073
                                                                 0.996204
R1_93
        0.625431
                        0.997054
                                        0.997791
                                                    0.625431
                                                                 0.996705
R2_1
                        0.992965
                                        0.992965
            1
                                    1
        1
R2_105
            0.985507
                        -- -- 0.706667
                                            0.992509
                                                         0.706667
       1
R2_115
                                        0.991845
                                                    0.840674
       0.840674
                        0.991763
                                    1
                                                                 0.922985
                    1
R2 116 0.512172
                        0.996177
                                    1
                                        1 0.512172
                                                        0.999069
R2_117
       0.711578
                        0.996356
                                        0.996453
                                    1
                                                    0.711578
                                                                 0.994986
R2_14
        0.719569
                    1
                        0.982878
                                    1
                                        0.916738
                                                    0.719569
                                                                 0.991507
R2_150
                        0.9986 1
                                    0.130011
       0.832372
                                                0.832372
                                                             0.997696
R2_151
       0.549869
                        0.991817
                                        0.00119505 0.549869
                                                                 0.999205
                                    1
                    1
R2 152
                                        0.0157253
                                                    0.603856
                                                                 0.998789
       0.603856
                    1
                        0.997347
                                    1
R2 153
       0.680012
                    1
                        0.991903
                                    1
                                        1
                                            0.680012
                                                         0.988011
R2 154
       0.855081
                        0.988127
                                        0.451182
                                                    0.855081
                                                                0.994627
R2_18
       0.628326
                        0.984865
                                        0.925924
                                                    0.628326
                                                                 0.986486
                                    1
R2_19
        0.811146
                        0.994538
                                        0.821059
                                                    0.811146
                                                                 0.999144
                                    1
R2_20
       0.732795
                        0.998868
                                    1
                                        0.999023
                                                    0.732795
                                                                 0.998952
                    1
R2 24
       0.576259
                    0.979592
                                0.99326 0.957447
                                                    1
                                                        0.576259
                                                                     0.998721
R2 26
       0.916638
                        0.993005
                                    1
                                        0.94618 0.916638
                                                             0.997195
                    1
R2_27
        0.752976
                        0.990885
                                    1
                                        1 0.752976
                                                        0.99921
```

```
R2 28
     0.684578 1 1 1 1 0.684578 1
     0.669333 1 0.994737 1 0.997678 0.669333 0.998165
R2 32
R2 33
     0.441696 0.5 1 0 nan 0.441696 1
R2_37
     R2_41 0.838099 1 0.994207 1 0.993615 0.838099
                                            0.990287
     0.831008 1 0.997712 1 1 0.831008 0.999534
R2 42
R2 45
     0.46395 1 1 1 1 0.46395 1
     0.709561 1 0.992042 1 1 0.709561 0.998308
R2 46
R2_47 0.888911 1 0.996396 1 0.986294 0.888911 0.997797
R2_53  0.389317  1  0.993598  1  0.991416  0.389317  0.99908
R2_57  0.64917 1  0.99569 1  0.0158003  0.64917 0.998812
     R2_59

      0.702989
      1
      0.996508
      1
      1
      0.702989
      0.990489

      0.608603
      1
      0.997788
      1
      0.354215
      0.608603
      0.997088

R2_6
R2_60
     0.886991 1 0.999101 1 0.99974 0.886991 0.997046
R2 63
R2_65 1 1 -- -- 0.993392 1 0.993392
R2_66 0.528717 1 0.999688 1 0.999066 0.528717 0.987964
R2_67 0.957935 1 1 1 1 0.957935 1
R2 68
     R2_7
     0.76132 1 0.998103 1 0.999407 0.76132 0.996124
R2_71 0.779412 1 0.978 1 0.975352 0.779412 0.998288
R2 72 0.327246 0.866667 0.986853 0.727273 1 0.327246 0.998188
R2_73 0.944027 1 0.996729 0.952381 0.998051 0.944027 0.999037
R2_76  0.463043  1  0.996047  1  1  0.463043  0.999218
```

Alignment sequin statistics for: B2

Summary for dataset: B2/TransAlign_quins.stats

```
ID Covered Sensitivity (Exon) Specificity (Exon)
                                                     Sensitivity (Intron)
                                                                             Specificity (Intron)
R1 101 0.833768
                    1
                                    0.833768
                        1
                            1
                                1
R1 102 0.719495
                                                                 0.99854
                    1
                        0.987047
                                     1
                                        0.00176159 0.719495
R1_103
       0.627701
                    1
                        0.992816
                                     1
                                        0.207487
                                                     0.627701
                                                                 0.995169
R1_11
        0.644489
                                0.0448018
                                             0.644489
                    1
                        1
                            1
                                                         1
R1_12
        0.583333
                        0.99528 1
                                    0.99734 0.583333
                                                         0.998225
R1_13
        0.920773
                        0.995253
                                    0.909091
                                                 0.780182
                                                                          0.993863
                                                             0.920773
                    1
R1 14
                                    0.995502
            0.999648
                        -- -- 1
                                                 1
R1_21
       0.630945
                        0.997868
                                        0.894799
                                                     0.630945
                                                                 0.942446
                    1
                                     1
R1 22
                                                                 0.998286
        0.527149
                        0.997019
                                     1
                                        0.00852348 0.527149
R1_23
        0.61024 1
                                    0.015077
                    0.993084
                                1
                                                 0.61024 0.998291
R1_24
                0.996884
                            1
                                0.997909
                                             1
                                                 0.998473
        1
                        0.992408
R1 31
        0.689234
                    1
                                     1
                                        0.99621 0.689234
                                                             0.991881
R1 32
        0.540822
                        1
                            1
                                     0.540822
                    1
                                1
                                                 1
R1_33
                            0.96
                                        0.880579
       0.880579
                    1
                        1
                                    1
                                                     1
                                                 0.78125 0.993816
R1_41
       0.78125 1
                    0.999422
                                1
                                    0.887919
R1_42
       0.617479
                    1
                        0.993277
                                     1
                                        0.891905
                                                     0.617479
                                                                 0.993884
R1_43
        0.526249
                    0.975
                                        0.973684
                                                     0.720085
                                                                 0.526249
                            0.991493
                                                                              0.994867
R1_51
        0.603157
                        0.995285
                                        0.0946672
                                                     0.603157
                                                                 0.997204
                    1
                                     1
R1_52
                    0.993337
                                    0.998695
                                                 0.6209 0.970203
        0.6209 1
                                1
R1_53
        0.998489
                    1
                        0.996715
                                     1
                                         0.0428192
                                                     0.998489
                                                                 0.996983
R1_61
        0.689482
                            1
                                0.00220526 0.689482
                                                         1
                    1
R1_62
                                0.000468596 0.774968
        0.774968
                            1
R1_63
       0.670484
                        0.997277
                                        0.87543 0.670484
                                                             0.995363
                    1
                                     1
R1 71
       0.740968
                        0.992827
                                        0.949823
                                                     0.740968
                                                                 0.983673
                                     1
R1 72
        0.607223
                                0.00092004 0.607223
                    1
                        1
                            1
                                                         1
R1_73
        0.731743
                    1
                        0.991638
                                    0.96
                                             0.0932937
                                                         0.731743
                                                                      0.996864
R1_81
       0.748031
                        0.997098
                                     1
                                        0.04424 0.748031
                                                             0.996329
                    1
R1_82
        0.587741
                        0.99522 1
                                    0.73257 0.587741
                                                         0.993612
                    1
R1_83
                        0.998545
                                        0.997938
                                                     0.647513
       0.647513
                                                                 0.998216
                    1
                                    1
R1 91
       0.676716
                        0.996396
                                        0.989189
                                                     0.676716
                                                                 0.999053
                    1
                                    1
R1_92
       0.777496
                    1
                        0.989192
                                    1
                                        0.997857
                                                     0.777496
                                                                 0.995127
R1 93
        0.62612 1
                    0.996901
                                1
                                     0.996568
                                                 0.62612 0.995616
R2_1
                        0.99397 1
                                    0.99397
            1
        1
            0.975904
R2_105
                        -- -- 0.874667
                                             0.993939
                                                         0.874667
       1
R2_115 0.838499
                        0.993517
                                        0.991845
                                                     0.838499
                                     1
                                                                 0.922801
                    1
R2 116 0.57136 1
                    0.991803
                                        0.57136 0.9975
                                1
                                     1
R2_117
                                        0.99467 0.711066
                                                             0.994982
       0.711066
                    1
                        0.997246
                                     1
R2_14
        0.719569
                    1
                        0.983698
                                     1
                                        0.932459
                                                     0.719569
                                                                 0.991507
R2_150
       0.83391 1
                    0.998194
                                    0.214306
                                                 0.83391 0.9977
R2_151
       0.568241
                        0.982484
                                        0.00243339 0.568241
                                     1
                                                                 0.997696
                    1
R2 152
                        0.998362
                                        0.0300802
                                                     0.603124
       0.603124
                    1
                                    1
                                                                 0.997981
R2 153
       0.671149
                    1
                        0.99501 1
                                    1
                                        0.671149
                                                     0.987854
                                        0.600748
R2 154
       0.855658
                        0.987492
                                                     0.855658
                                                                 0.993964
R2_18
       0.628326
                        0.984022
                                        0.991925
                                                     0.628326
                                                                 0.986486
                                    1
                    1
R2_19
        0.811378
                        0.996101
                                        0.141851
                                                     0.811378
                                                                 0.999001
                    1
                                    1
                                        0.996232
R2_20
       0.734333
                        0.996728
                                                     0.734333
                                                                 0.995829
                    1
                                     1
R2 24
       0.585856
                    0.979592
                                0.992486
                                             0.957447
                                                         1
                                                             0.585856
                                                                          0.997988
R2 26
       0.916638
                        0.993025
                                     1
                                         0.787821
                                                     0.916638
                                                                 0.997568
                    1
R2_27
        0.75625 1
                    0.99559 1 1
                                    0.75625 0.999607
```

```
R2 28
     0.688434 1 1 1 1 0.688434 1
     0.66964 1 0.994642 1 1 0.66964 0.989545
R2 32
R2 33 0.897527 1 1 1 1 0.897527 1
R2_37
     0.722184 1 0.987135 0.888889 0.996283 0.722184 0.998434
R2_38  0.378378  1  0.965649  1  1  0.378378  0.998261
R2_41 0.837026 1 0.994549 1 0.997638 0.837026 0.99702
R2 42 0.865891 1 1 1 0.865891 1
R2 45
     0.463083 1 0.999771 1 1 0.463083 0.999688
     0.705352 1 1 1 1 0.705352 1
R2 46
R2_47 0.889107 1 0.996018 1 0.984317 0.889107 0.998017
R2_53  0.389496  1  0.998159  1  1  0.389496  0.99908
R2\_54 \quad 0.864703 \quad 1 \quad 0.992218 \quad 1 \quad 0.997733 \quad 0.864703 \quad 0.997191
R2_55 0.880804 1 0.981264 1 0.998791 0.880804 0.990647
R2_57 0.624083 1 0.995 0.941176 0.0127108 0.624083 0.998765
R2_59
     0.57655 1 1 1 1 0.57655 1
     R2_6
     0.608603 1 0.99745 1 0.370078 0.608603 0.996508
R2_60
R2 63
     0.886991 1 0.998516 1 0.999484 0.886991 0.996555
R2_65 1 1 -- -- 0.995595 1 0.995595
R2_66 0.527107 1 0.999693 1 0.998859 0.527107 0.987928
R2_67 0.944551 1 1 1 1 0.944551 1
R2 68
     R2_7
     0.76132 1 0.998123 1 0.998683 0.76132 0.995573
R2_71 0.669118 1 0.996303 1 1 0.669118 0.999002
R2 72 0.341203 0.866667 0.987028 0.727273 1 0.341203 0.998696
R2_73 0.929693 1 0.996043 1 0.999042 0.929693 0.999511
R2_76  0.476449  1  0.99776  1  1  0.476449  0.99924
```

Alignment sequin statistics for: B3

Summary for dataset: B3/TransAlign_quins.stats

```
ID Covered Sensitivity (Exon) Specificity (Exon)
                                                    Sensitivity (Intron)
                                                                             Specificity (Intron)
R1 101 0.845953
                    1
                                    0.845953
                            1
                                1
                        1
R1 102 0.709327
                        0.986618
                                    1
                                        0.0102989
                                                     0.709327
                                                                 0.998519
                    1
R1_103
       0.627978
                    1
                        0.992584
                                    1
                                        0.632425
                                                     0.627978
                                                                 0.995608
R1_11
        0.626344
                        0.998551
                                    1
                                        0.037669
                                                     0.626344
                                                                 0.995726
                    1
R1_12
        0.590941
                        0.99219 1
                                    0.994792
                                                 0.590941
                                                             0.998248
R1_13
        0.920015
                        0.98925 0.909091
                                             0.951455
                                                         0.920015
                                                                     0.994672
                    1
R1 14
            0.999485
                        -- -- 1
                                    0.989568
                                                 1
R1_21
       0.630945
                        0.998002
                                        0.797785
                                                     0.630945
                                                                 0.940754
                    1
                                    1
R1 22
        0.527149
                        0.998893
                                        0.00177882 0.527149
                                                                 0.996578
R1_23
       0.609544
                        0.993163
                                    1
                                        0.00284772 0.609544
                                                                 0.997719
                    1
R1_24
        0.999563
                        0.996226
                                    1
                                        0.998971
                                                     0.999563
                                                                 0.998037
                    1
R1_31
       0.689234
                        0.988055
                                        0.98054 0.689234
                                                             0.992552
                    1
                                    1
R1 32
                            1
                                    0.543717
       0.543717
                    1
                                1
                                                 1
R1_33
                        0.996546
       0.903045
                    1
                                    1
                                        1
                                            0.903045
                                                         0.999019
                                    0.973023
R1_41
       0.78125 1
                    0.999615
                                1
                                                 0.78125 0.996457
R1_42
       0.617479
                    1
                        0.993761
                                    1
                                        0.876575
                                                     0.617479
                                                                 0.991862
R1_43
        0.52643 0.975
                        0.992023
                                    0.973684
                                                 0.491409
                                                             0.52643 0.994868
R1_51
        0.604284
                        0.996424
                                        0.331359
                                                     0.604284
                                                                 0.996283
                    1
                                    1
R1_52
        0.625095
                    1
                        0.992522
                                    1
                                        0.998908
                                                     0.625095
                                                                 0.996353
                                        0.207714
R1_53
        0.998489
                        0.996255
                                    1
                                                     0.998489
                                                                 0.996983
R1_61
        0.686978
                        1
                            1
                                0.0155595
                                             0.686978
                                                         1
                    1
R1_62
                                0.00775528 0.771176
        0.771176
                    1
                            1
R1_63
                        0.997669
                                        0.87759 0.670484
       0.670484
                                    1
                                                             0.994595
                    1
                                                     0.740968
                        0.990145
                                        0.965978
                                                                 0.986694
R1 71
        0.740968
                                    1
R1_72
       0.588713
                                0.00389273 0.588713
                    1
                        1
                            1
                                                         1
R1_73
        0.730906
                    1
                        0.991228
                                    1
                                        0.395113
                                                     0.730906
                                                                 0.99743
R1_81
       0.748425
                        0.996473
                                    1
                                        0.206774
                                                     0.748425
                                                                 0.995809
                    1
R1_82
        0.587741
                        0.993872
                                        0.997645
                                                     0.587741
                                                                 0.994318
R1_83
                        0.998169
                                        0.998138
                                                     0.645584
       0.645584
                                                                 0.997616
                    1
                                    1
R1 91
       0.679923
                        0.998533
                                       0.995893
                                                    0.679923
                                                                 0.999057
                    1
                                    1
R1_92
       0.776227
                    1
                        0.989358
                                        0.997596
                                                    0.776227
                                                                 0.995119
R1_93
        0.625086
                    1
                        0.996451
                                        0.997744
                                                     0.625086
                                                                 0.994518
R2_1
                                        0.994975
            1
                        0.994975
                                    1
        1
R2_105
                        -- -- 0.984
                                        0.994609
                                                     0.984
       1
            0.963855
R2_115
                                        0.992553
                                                     0.841218
       0.841218
                        0.993299
                                    1
                                                                 0.923031
                    1
R2_116 0.518854
                        0.997216
                                    1
                                        1
                                             0.518854
                                                         0.999081
R2_117
                        0.998624
                                        0.998808
       0.711066
                                    1
                                                     0.711066
                                                                 0.995696
R2_14
        0.719569
                    1
                        0.983239
                                    1
                                        0.944448
                                                     0.719569
                                                                 0.991507
R2_150
                        0.998103
       0.833526
                                        0.0494174
                                                     0.833526
                                                                 0.997699
R2_151
       0.550744
                        0.991131
                                        0.000491875 0.550744
                                                                 0.998414
                    1
                                    1
R2 152
       0.603368
                    1
                        0.997909
                                    1
                                        0.00507309 0.603368
                                                                 0.998384
R2 153
       0.683374
                    1
                        0.997373
                                    1
                                        0.980994
                                                     0.683374
                                                                 0.999553
R2 154
       0.855658
                        0.993276
                                        0.208654
                                                     0.855658
                                                                 0.994631
R2_18
        0.628326
                        0.982681
                                        0.921885
                                                     0.628326
                                                                 0.986486
                                    1
                    1
R2_19
        0.811146
                        0.993283
                                        0.517208
                                                     0.811146
                                                                 0.998574
                    1
                                    1
                                                 0.73318 0.997907
R2_20
       0.73318 1
                    0.999189
                                    0.878936
                                1
R2 24
       0.586003
                    0.979592
                                0.992228
                                             0.957447
                                                         1
                                                             0.586003
                                                                         0.998239
R2 26
                                                     0.916294
                                                                 0.997567
       0.916294
                        0.993199
                                    1
                                        0.943673
                    1
R2_27
        0.746429
                        0.995575
                                    1
                                        1
                                            0.746429
                                                         0.998805
```

```
R2 28
     0.688675 1 1 1 1 0.688675 1
     0.667795 1
R2_32
               0.994107
                       1 0.998188 0.667795 0.99862
R2 33
     R2_37
     0.719692 1
               0.996328 1 1 0.719692 0.999371
0.866667 1 1 1 1 0.866667 1
R2 42
R2 45
     0.457304 1 0.998857 1 0.338757 0.457304 0.998423
     R2 46
R2_47
     0.889107 1 0.996537 1 0.994835 0.889107 0.997578
R2_53
     0.387345 1 0.996615 1 0.994531 0.387345
                                         0.999075
R2_54 0.864703 1 0.99145 1 0.990187 0.864703 0.997191
R2_55 0.880804 1 0.981338 1 0.981419 0.880804 0.990647
R2_57 0.641837 1 0.993761 0.941176 0.0167529 0.641837 0.998199
R2_59
     0.59593 1 0.997914 1 1 0.59593 0.999729
     R2_6
R2_60
     0.608603 1 0.997823 1 0.372401 0.608603 0.995928
R2 63
     0.886991 1 0.998307 1 0.998181 0.886991
                                         0.995575
     1 1 -- -- 0.995595 1 0.995595
R2_65
     0.527107 \qquad 1 \qquad 0.999681 \qquad 1 \qquad 0.998892 \qquad 0.527107 \qquad 0.992922
R2 66
R2_67 0.967495 1 1 1 1 0.967495 1
R2 68
     R2_7
     0.76132 1 0.998201 1 0.999497 0.76132 0.994472
R2_71 0.780749 1 0.994604 1 1 0.780749 0.999145
R2 72 0.318634 0.866667 0.991273 0.454545 1 0.318634 0.998604
R2_73 0.949033 1 0.996016 1 0.997414 0.949033 0.998803
R2_76  0.473913  1  0.991788  1  1  0.473913  0.999236
```

Transcriptome Analysis

TransQuin Expression (Gene)

Expression summary statistics for: A1

```
Summary for dataset: /Users/tedwong/Desktop/K_562/Cufflinks/A1/genes.fpkm_tracking
  Experiment: 60570 gene
  Synthetic:
               75 gene
  Reference: 76 gene
  Detected:
             4.39067 gene
  *** Detection Limits
  Break: 3.77655 (R1_62)
  Left: 4.39067 + 0.0805742x (R2 = 0.0567335)
  Right: 2.0794 + 1.00352x (R2 = 0.922502)
  *** Statistics for linear regression
  Correlation: 0.962825
  Slope: 6.46625
  R2:
              0.927032
  F-statistic: 902.032
  P-value:
  SSM: 3.50824e+10, DF: 1
SSE: 2.76138e+09, DF: 71
  SST:
             3.78438e+10, DF: 72
   *** Statistics for linear regression (log2 scale)
  Correlation: 0.936306
            0.724913
  Slope:
  R2:
              0.876669
  F-statistic: 504.686
  P-value: 0
  SSM:
             1040.46, DF: 1
             146.373, DF: 71
  SSE:
  SST:
             1186.83, DF: 72
```

Expression summary statistics for: A2

SSM:

SST:

SSE:

967.772, DF: 1

161.616, DF: 71

1129.39, DF: 72

```
Summary for dataset: /Users/tedwong/Desktop/K_562/Cufflinks/A2/genes.fpkm_tracking
  Experiment: 60570 gene
  Synthetic:
              75 gene
              76 gene
  Reference:
  Detected:
              4.62321 gene
  ***
  *** Detection Limits
  ***
  Break: 3.77655 (R1_62)
  Left: 4.62321 + 0.0227324x (R2 = 0.00360572)
  Right: 2.20463 + 0.990951x (R2 = 0.91596)
  ***
  *** Statistics for linear regression
  Correlation: 0.960008
  Slope: 6.60733
  R2:
              0.921615
  F-statistic: 834.781
  P-value: 0
             3.663e+10, DF: 1
  SSM:
             3.11546e+09, DF: 71
  SSE:
  SST:
             3.97454e+10, DF: 72
  *** Statistics for linear regression (log2 scale)
  ***
  Correlation: 0.925689
  Slope:
             0.699133
  R2:
              0.8569
  F-statistic: 425.155
  P-value:
```

Expression summary statistics for: A3

Summary for dataset: /Users/tedwong/Desktop/K_562/Cufflinks/A3/genes.fpkm_tracking Experiment: 60569 gene Synthetic: 75 gene Reference: 76 gene Detected: 5.25776 gene *** *** Detection Limits *** Break: 15.1062 (R1_101) Left: 5.25776 + 0.16804x (R2 = 0.139073)Right: 1.51144 + 1.05768x (R2 = 0.903529) *** *** Statistics for linear regression Correlation: 0.961001 Slope: 6.31637 R2: 0.923522 F-statistic: 857.371 P-value: 0 3.34749e+10, DF: 1 SSM: 2.7721e+09, DF: 71 SSE: SST: 3.6247e+10, DF: 72 *** Statistics for linear regression (log2 scale) *** Correlation: 0.915017 Slope: 0.666601 R2: 0.837255 F-statistic: 365.266 P-value:

SSM: 879.802, DF: 1 SSE: 171.015, DF: 71

SST: 1050.82, DF: 72

Expression summary statistics for: B1

```
Summary for dataset: /Users/tedwong/Desktop/K_562/Cufflinks/A1/genes.fpkm_tracking
   Experiment: 60570 gene
   Synthetic:
                75 gene
   Reference:
                76 gene
   Detected:
              4.39067 gene
   ***
   *** Detection Limits
   Break: 3.77655 (R1_62)
   Left: 4.39067 + 0.0805742x (R2 = 0.0567335)
   Right: 2.0794 + 1.00352x (R2 = 0.922502)
   ***
   *** Statistics for linear regression
   Correlation: 0.962825
   Slope: 6.46625
   R2:
               0.927032
   F-statistic: 902.032
   P-value: 0
  SSM: 3.50824e+10, DF: 1
SSE: 2.76138e+09, DF: 71
SST: 3.78438e+10, DF: 72
   *** Statistics for linear regression (log2 scale)
   ***
   Correlation: 0.936306
   Slope:
              0.724913
   R2:
                0.876669
   F-statistic: 504.686
  SSM: 1040.46, DF: 1
SSE: 146.373, DF: 71
SST: 1186 82
   P-value:
```

Expression summary statistics for: B2

SSM:

SST:

SSE:

967.772, DF: 1

161.616, DF: 71

1129.39, DF: 72

```
Summary for dataset: /Users/tedwong/Desktop/K_562/Cufflinks/A2/genes.fpkm_tracking
  Experiment: 60570 gene
  Synthetic:
              75 gene
              76 gene
  Reference:
  Detected:
              4.62321 gene
  ***
  *** Detection Limits
  Break: 3.77655 (R1_62)
  Left: 4.62321 + 0.0227324x (R2 = 0.00360572)
  Right: 2.20463 + 0.990951x (R2 = 0.91596)
  ***
  *** Statistics for linear regression
  Correlation: 0.960008
  Slope: 6.60733
  R2:
              0.921615
  F-statistic: 834.781
  P-value: 0
             3.663e+10, DF: 1
  SSM:
             3.11546e+09, DF: 71
  SSE:
  SST:
             3.97454e+10, DF: 72
  *** Statistics for linear regression (log2 scale)
  ***
  Correlation: 0.925689
  Slope:
             0.699133
  R2:
              0.8569
  F-statistic: 425.155
  P-value:
```

Expression summary statistics for: B3

879.802, DF: 1 171.015, DF: 71

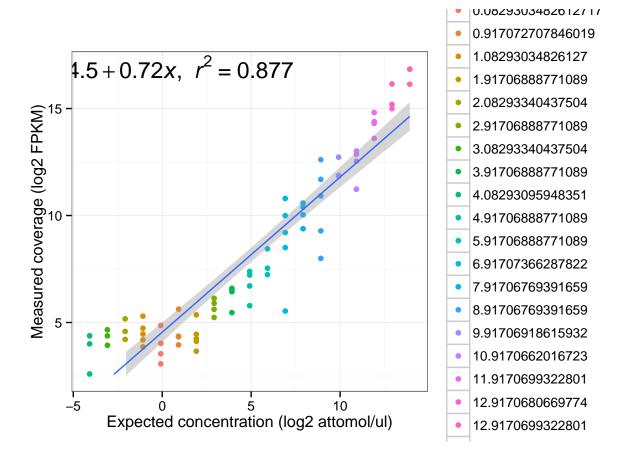
1050.82, DF: 72

SSM: SSE:

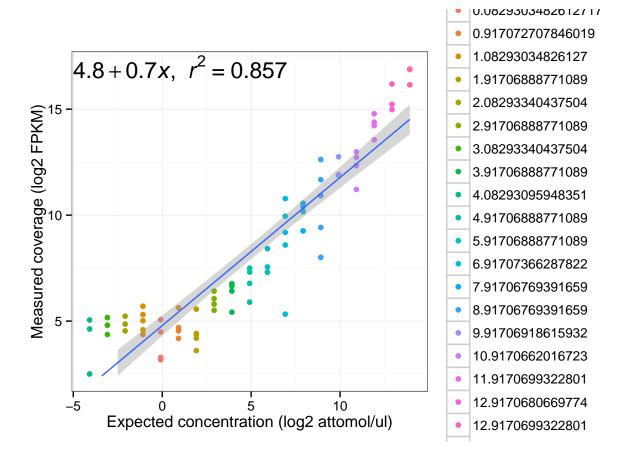
SST:

```
Summary for dataset: /Users/tedwong/Desktop/K_562/Cufflinks/A3/genes.fpkm_tracking
  Experiment: 60569 gene
  Synthetic:
              75 gene
  Reference:
              76 gene
  Detected:
            5.25776 gene
  ***
  *** Detection Limits
  Break: 15.1062 (R1_101)
  Left: 5.25776 + 0.16804x (R2 = 0.139073)
  Right: 1.51144 + 1.05768x (R2 = 0.903529)
  ***
  *** Statistics for linear regression
  Correlation: 0.961001
  Slope: 6.31637
  R2:
              0.923522
  F-statistic: 857.371
  P-value: 0
             3.34749e+10, DF: 1
  SSM:
             2.7721e+09, DF: 71
  SSE:
  SST:
             3.6247e+10, DF: 72
  *** Statistics for linear regression (log2 scale)
  ***
  Correlation: 0.915017
  Slope:
            0.666601
  R2:
              0.837255
  F-statistic: 365.266
  P-value:
```

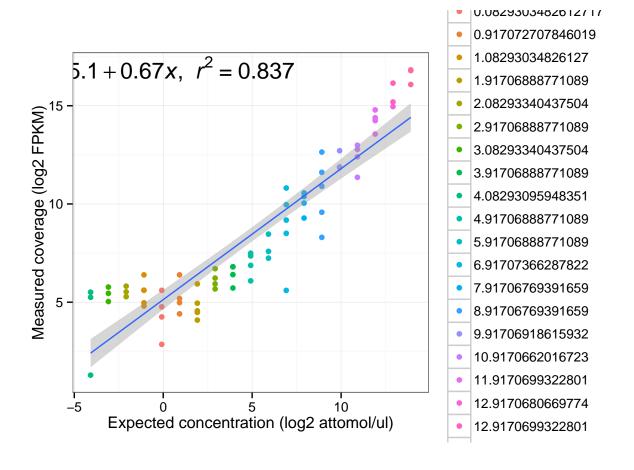
Expression scatter plot for: A1



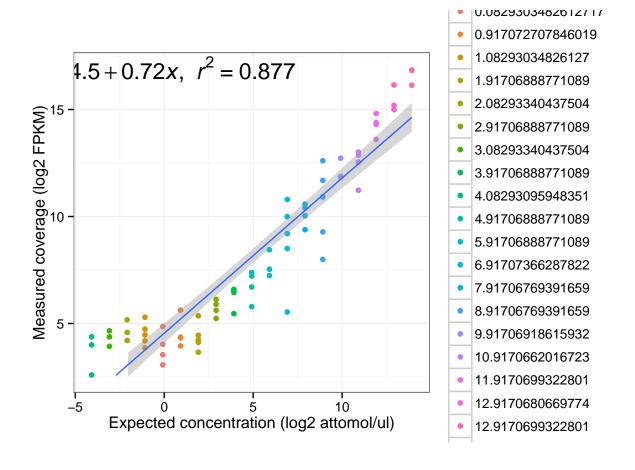
Expression scatter plot for: A2



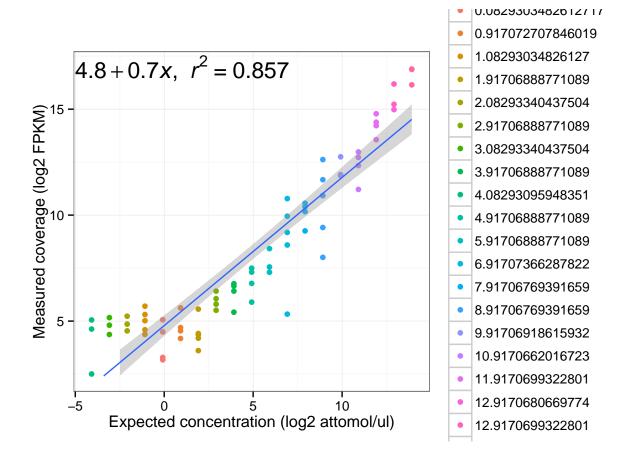
Expression scatter plot for: A3



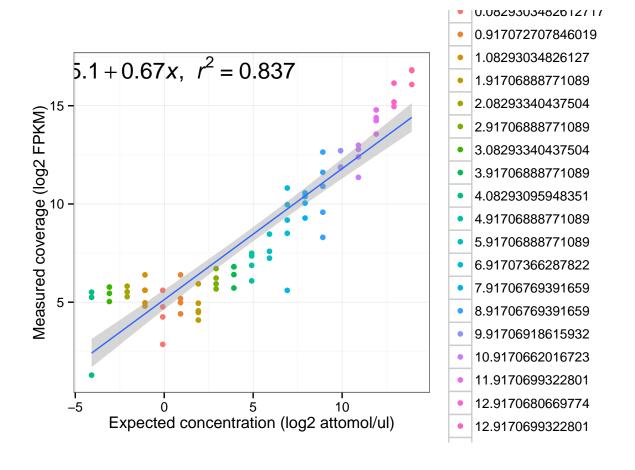
Expression scatter plot for: B1



Expression scatter plot for: B2



Expression scatter plot for: B3



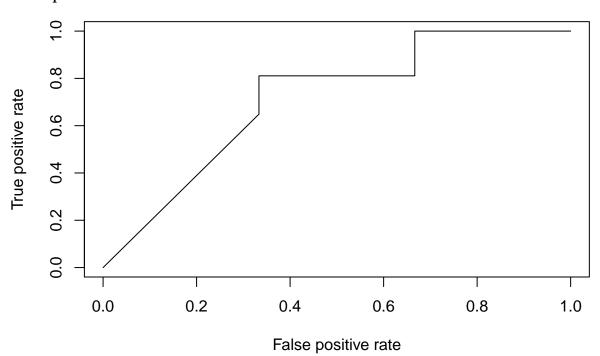
TransQuin Expression (Isoform)

TransQuin Differential

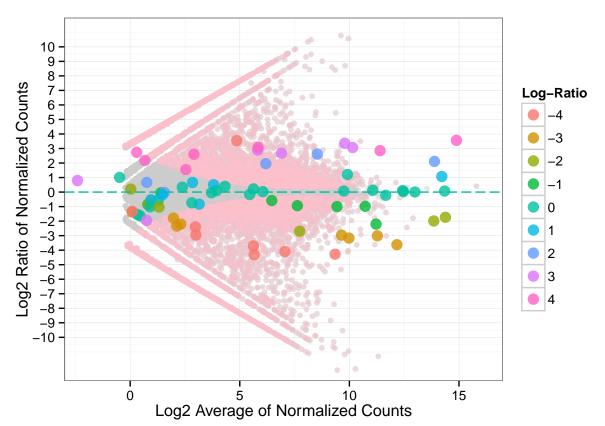
Differential summary statistics

```
Summary for dataset: /Users/tedwong/Desktop/K_562/DESeq2/DESeq2.csv
  Experiment: 60500 gene
  Synthetic:
               75 gene
  Reference: 76 gene
  Detected: 75 gene
   *** Detection Limits
   ***
   Absolute: 0.0590086 (attomol/ul) (R2_38)
   *** Statistics for linear regression
  Correlation: 0.707428
  Slope: 0.426606
              0.500454
  F-statistic: 73.1328
  P-value: 1.29274e-12
  SSM: 302.202, DF: 1
SSE: 301.653, DF: 73
              603.855, DF: 74
  SST:
   ***
   *** Statistics for linear regression (log2 scale)
  Correlation: 0.790229
  Slope: 0.648599
               0.624462
  F-statistic: 121.388
  P-value: 0
  SSM: 183.058, DF: 1
SSE: 110.087, DF: 73
SST: 293.145, DF: 74
```

ROC plot

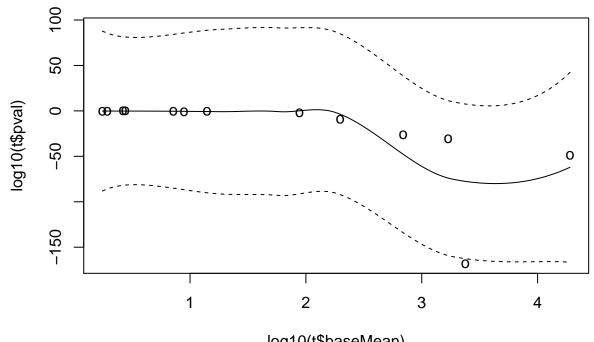


MA plot

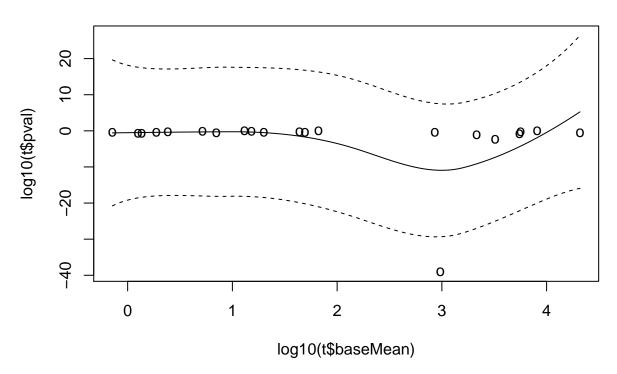


LODR plot

Local regression for LFC: 1



log10(t\$baseMean)
Local regression for LFC: 0



Local regression for LFC: 2

