Comparison of exons grouped into: UP-EXONS-HeLa-SRRM2-KD, DOWN-EXONS-HeLa-SRRM2-KD, CR, CS, AS-NC

March 3, 2025 Matt version 1.3.0

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1 Infos

Visualizations of exon features for different groups of exons. Each exon occurs in exactly one gene, but might occur in several transcripts of that gene. Hence, for some features like the exon length, there is exactly one value for each exon. For other features, e.g., length of the up-stream exon(s), which could be different in different transcripts, there might be several values for each exon. Consequently, in the latter cases, the median of these value gets reported.

2 Warning: Please read this note carefully

Please keep in mind that some features might affect other features. Especially: all branch-point features get extracted from sub-sequences of introns, by standard the last 150 nt at the 3' end of each intron (if you haven't changed this) always neglecting the first 20 nt at their 5' end. If introns of one set are especially short, i.e., many are shorter then these 150 nt, then the shorter intron length might affect branch-point features. For example, there might be less branch points found in shorter introns or their distance to the 3' intron ends might be generally shorter simply because of their shorter intron length.

3 Notes for publishing results

The Matt paper: Matt: Unix tools for alternative splicing analysis, A. Gohr, M. Irimia, Bioinformatics, 2018, bty606, DOI: 10.1093/bioinformatics/bty606

When publishing results wrt. splice site strengths which you determined for your data using matt, please cite: Maximum entropy modeling of short sequence motifs with applications to RNA splicing signals, Yeo et al., 2003, DOI: 10.1089/1066527041410418

When publishing results wrt. branch point features which you determined for your data with matt, please cite: Genome-wide association between branch point properties and alternative splicing, Corvelo et al., 2010, DOI: 10.1371/journal.pcbi.1001016

When publishing results with respect to the binding strength of the human Sf1 splicing factor, you might refert to where the Sf1 binding motif comes from: Analysis of in situ pre-mRNA targets of human splicing factor SF1 reveals a function in alternative splicing, Margherita Corioni, Nicolas Antih, Goranka Tanackovic, Mihaela Zavolan, and Angela Kramer, 2011, DOI: 10.1093/nar/gkq1042

The Sf1 binding motif is described in supplement, page 13, table S2: Weight matrix of the binding specificity of SF1.

4 Data sets

Input file:

MATT_INPUT_EXONS_SRRM2_HeLa.tab

Selection criteria for defining exons groups:

UP_EXONS_HeLa_SRRM2-KD : having value UP_EXONS_HeLa_SRRM2-KD in column GROUP DOWN_EXONS_HeLa_SRRM2-KD : having value DOWN_EXONS_HeLa_SRRM2-KD in column GROUP

 ${\tt CR}: {\tt having\ value} \quad {\tt CR} \quad {\tt in\ column} \quad {\tt GROUP} \\ {\tt CS}: {\tt having\ value} \quad {\tt CS} \quad {\tt in\ column} \quad {\tt GROUP} \\$

AS_NC : having value AS_NC in column GROUP

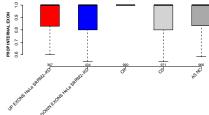
Exon duplicates removal: yes

Numbers of exons per group before / after neglecting exons which were not found in GTF file (gene annotation). For the comparisons only exons which were found in the gene annotation are used. These numbers might change slightly for each feature if NAs occur.

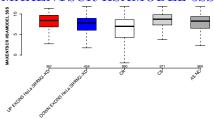
CR: 1000 / 990 CS: 1000 / 971 AS_NC: 1000 / 966

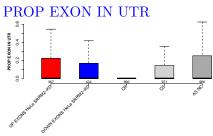
5 Overview: Features with statistically significant differences (p-val ≤ 0.05)

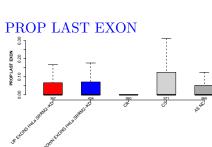


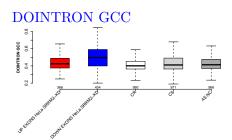


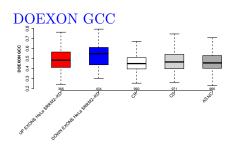
MAXENTSCR HSAMODEL 5SS

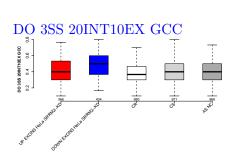


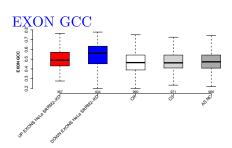




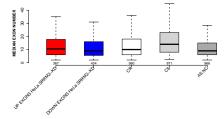




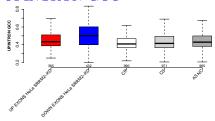




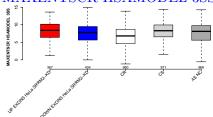
MEDIAN EXON NUMBER

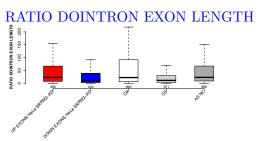


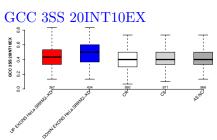
UPINTRON GCC

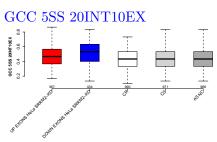


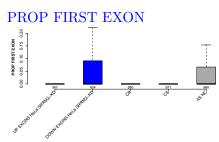
MAXENTSCR HSAMODEL 3SS

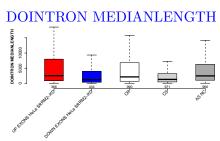


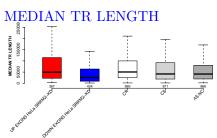




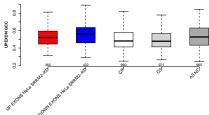


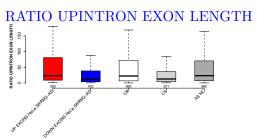




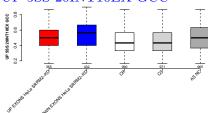


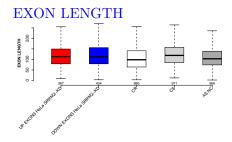
UPEXON GCC

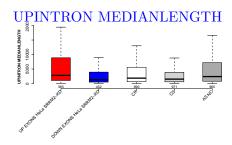


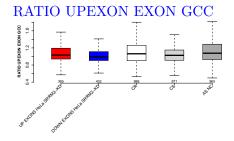


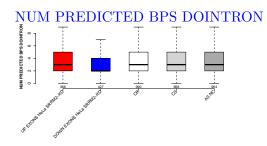
UP 5SS 20INT10EX GCC



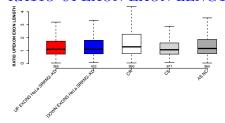


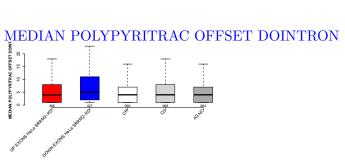


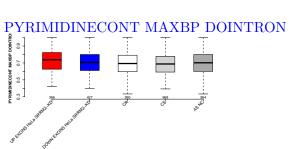


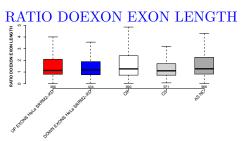


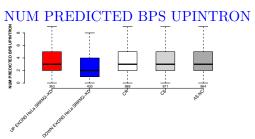
RATIO UPEXON EXON LENGTH

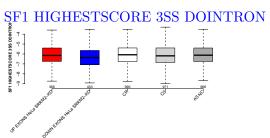


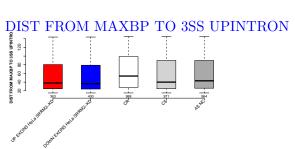


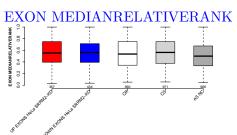


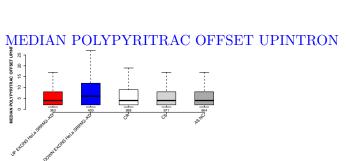


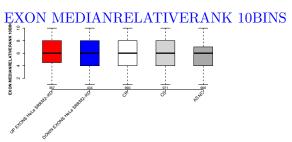




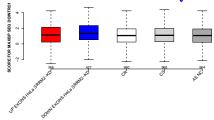




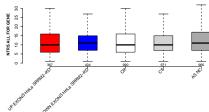




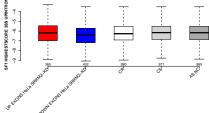
SCORE FOR MAXBP SEQ DOINTRON

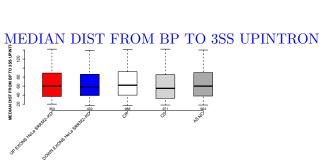


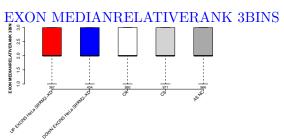
NTRS ALL FOR GENE

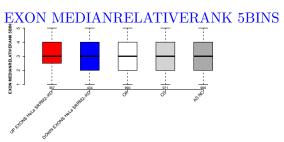


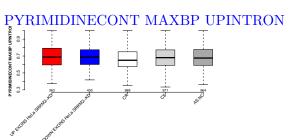
§F1 HIGHESTSCORE 3SS UPINTRON



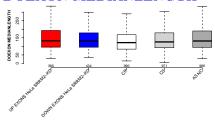


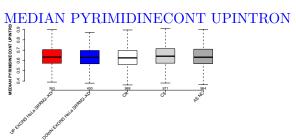


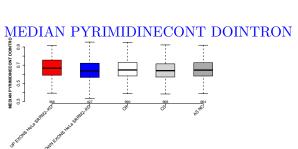


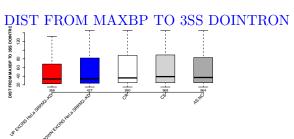


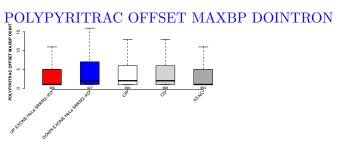
DOEXON MEDIANLENGTH

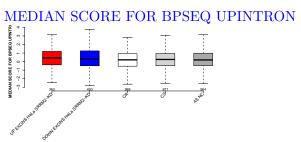


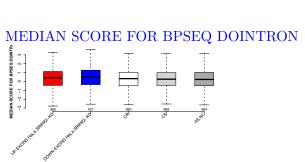


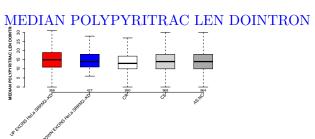


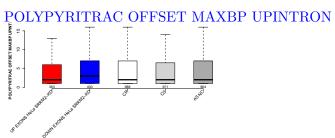




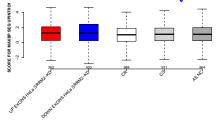




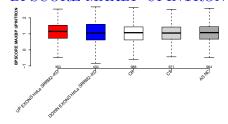




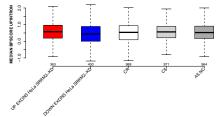
SCORE FOR MAXBP SEQ UPINTRON

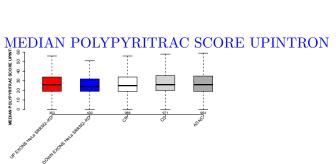


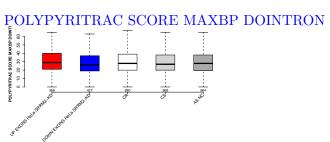
BPSCORE MAXBP UPINTRON

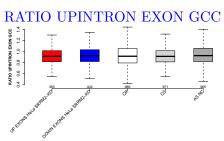


MEDIAN BPSCORE UPINTRON

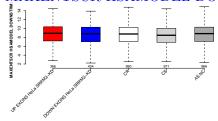




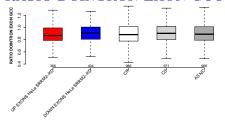




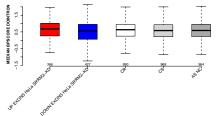
MAXENTSCR HSAMODEL DOWNSTRM 3SS



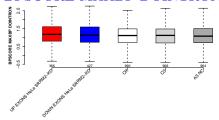
RATIO DOINTRON EXON GCC

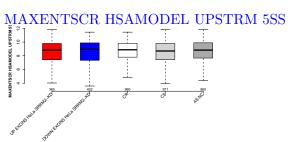


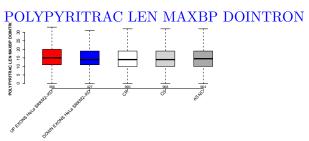
MEDIAN BPSCORE DOINTRON

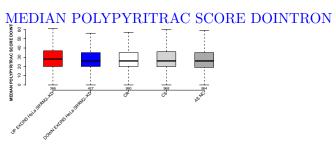


BPSCORE MAXBP DOINTRON

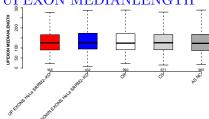








UPEXON MEDIANLENGTH

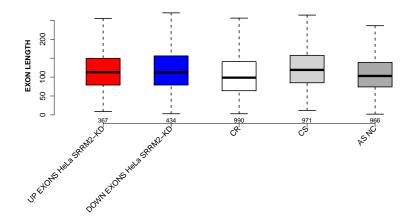


6 Details: Box plots and statistical assessments for all features

6.1 EXON LENGTH

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Meaning:



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs CR : 3.37749e-05 mean: 143.2316 > 118.6434, median: 113 > 98.5

• UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00267159 mean: 143.2316 > 126.8747, median: 113 > 103

• DOWN_EXONS_HeLa_SRRM2-KD vs CR : 1.66329e-05 mean: 145.5276 > 118.6434, median: 112.5 > 98.5

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00204301 mean: 145.5276 > 126.8747, median: 112.5 > 103

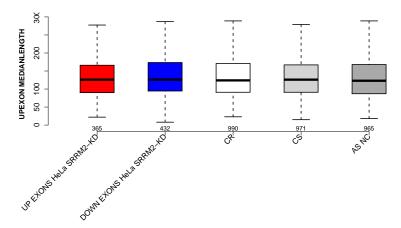
 \bullet CS vs AS_NC : $4.59401\mathrm{e}\text{-}09$

mean: 134.3944 > 126.8747, median: 119 > 103

6.2 UPEXON MEDIANLENGTH

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Meaning: median length of up-stream exon



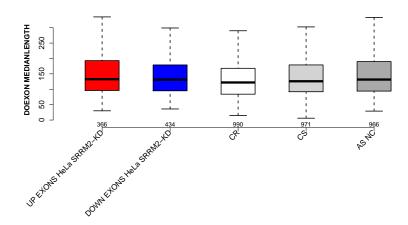
Significant results from Mann-Whitney U test:

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0433104 mean: 151.0394 > 145.9187, median: 126 > 123

6.3 DOEXON MEDIANLENGTH

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Meaning: median length of down-stream exon



Significant results from Mann-Whitney U test:

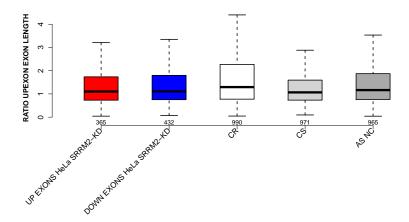
• UP_EXONS_HeLa_SRRM2-KD vs CR : 0.00154108 mean: 271.8661 > 191.2293 , median: 132.75 > 122

• DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.00300835 mean: 241.7719 > 191.2293 , median: 131.25 > 122

6.4 RATIO UPEXON EXON LENGTH

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Meaning: median up-stream exon length / exon length

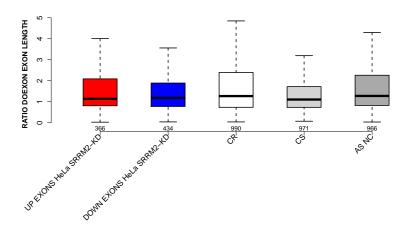


- UP_EXONS_HeLa_SRRM2-KD vs CR : 0.000651874 mean: 1.6281 < 3.4883 , median: 1.1 < 1.2938
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.00241235 mean: 1.6711 < 3.4883 , median: 1.1073 < 1.2938
- CR vs CS : 1.15958e-09 mean: 3.4883 > 1.3722, median: 1.2938 > 1.0667
- CS vs AS_NC : 0.000650869 mean: 1.3722 < 1.7287, median: 1.0667 < 1.1653

6.5 RATIO DOEXON EXON LENGTH

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Meaning: median down-stream exon length / exon length



Significant results from Mann-Whitney U test:

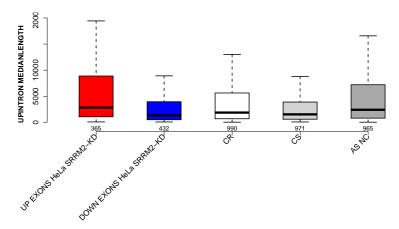
 \bullet UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0209073 mean: 2.724 > 2.2626 , median: 1.1371 > 1.1061

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0239092 mean: 2.7234 < 3.0366, median: 1.1852 < 1.277

6.6 UPINTRON MEDIANLENGTH

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Meaning: median length of up-stream introns



Significant results from Mann-Whitney U test:

 \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 5.96641e-10 mean: 10242.663 > 5310.7049 , median: 2813 > 1316.5

• UP_EXONS_HeLa_SRRM2-KD vs CR : 0.000206623 mean: 10242.663 > 6711.3051, median: 2813 > 1865

• UP_EXONS_HeLa_SRRM2-KD vs CS : 1.3601e-11 mean: 10242.663 > 4547.5881, median: 2813 > 1524

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CR : 7.63556e-05 mean: 5310.7049 < 6711.3051 , median: 1316.5 < 1865

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 4.3952 e-09 mean: 5310.7049 < 7522.4176 , median: 1316.5 < 2406

• CR vs CS : 4.05011e-05 mean: 6711.3051 > 4547.5881, median: 1865 > 1524

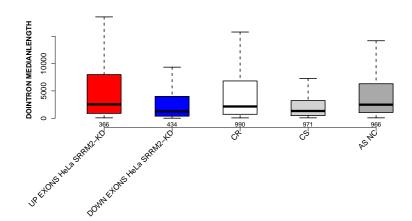
• CS vs AS_NC : 1.80513e-11

mean: 4547.5881 < 7522.4176, median: 1524 < 2406

6.7 DOINTRON MEDIANLENGTH

Back to: Overview | ToC

Meaning: median length of down-stream introns



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 3.09666e-09 mean: 8074.7883 > 4937.0472, median: 2545.5 > 1246

• UP_EXONS_HeLa_SRRM2-KD vs CS : 1.98237e-12 mean: 8074.7883 > 3328.8162 , median: 2545.5 > 1326

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CR : 2.51619e-09 mean: 4937.0472 < 7524.8823 , median: 1246 < 2150.5

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 4.24293e-14 mean: 4937.0472 < 6844.3716, median: 1246 < 2479.5

 \bullet CR vs CS : 2.96136e-14

mean: 7524.8823 > 3328.8162, median: 2150.5 > 1326

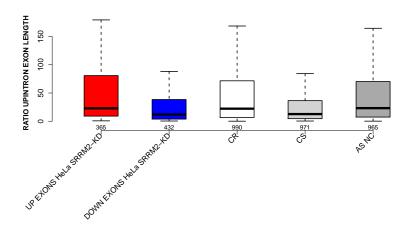
• CS vs $AS_NC : 1.55442e-23$

mean: 3328.8162 < 6844.3716, median: 1326 < 2479.5

6.8 RATIO UPINTRON EXON LENGTH

Back to: Overview | ToC

Meaning: median up-stream intron length / exon length



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 9.48621e-09 mean: 108.1088 > 46.4838, median: 22.8824 > 11.8713

• UP_EXONS_HeLa_SRRM2-KD vs CS : 2.31818e-11 mean: 108.1088 > 43.874, median: 22.8824 > 12.6522

• DOWN_EXONS_HeLa_SRRM2-KD vs CR : 2.129e-09 mean: 46.4838 < 121.3005, median: 11.8713 < 22.218

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 2.82076e-10 mean: 46.4838 < 93.7403 , median: 11.8713 < 23.1736

 \bullet CR vs CS : 5.9226e-14

mean: 121.3005 > 43.874, median: 22.218 > 12.6522

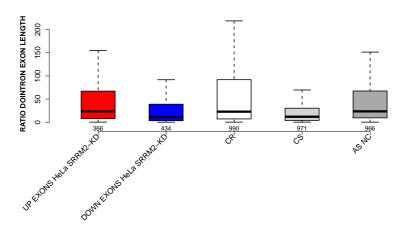
• CS vs AS_NC: 1.73003e-15

mean: 43.874 < 93.7403, median: 12.6522 < 23.1736

6.9 RATIO DOINTRON EXON LENGTH

Back to: Overview | ToC

Meaning: median down-stream intron length / exon length



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 8.47607e-09 mean: 83.6978 > 69.9979, median: 23.3551 > 11.0634

• UP_EXONS_HeLa_SRRM2-KD vs CS : 8.92115e-13 mean: 83.6978 > 32.5529, median: 23.3551 > 11.8554

• DOWN_EXONS_HeLa_SRRM2-KD vs CR : 1.14839e-13 mean: 69.9979 < 230.4243, median: 11.0634 < 22.8519

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 7.32623e-16 mean: 69.9979 < 89.0671, median: 11.0634 < 23.4998

 \bullet CR vs CS : 1.92728e-23

mean: 230.4243 > 32.5529, median: 22.8519 > 11.8554

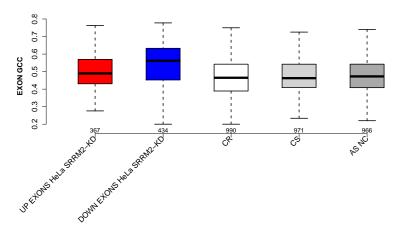
 \bullet CS vs AS_NC : 2.03153e-28

mean: 32.5529 < 89.0671, median: 11.8554 < 23.4998

6.10 EXON GCC

Back to: Overview | ToC

Meaning: GC content of entire exon sequence

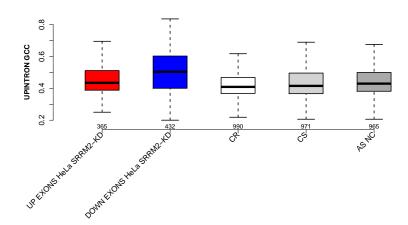


- UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 8.7061e-10 mean: 0.497578 < 0.542795 , median: 0.489583 < 0.561952
- UP_EXONS_HeLa_SRRM2-KD vs CR : 4.29388e-06 mean: 0.497578 > 0.466662 , median: 0.489583 > 0.464842
- UP_EXONS_HeLa_SRRM2-KD vs CS : 0.000791827 mean: 0.497578 > 0.478617, median: 0.489583 > 0.4625
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00398792 mean: 0.497578 > 0.480319 , median: 0.489583 > 0.472582
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 1.04404e-31 mean: 0.542795 > 0.466662, median: 0.561952 > 0.464842
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 3.17239e-25 mean: 0.542795 > 0.478617, median: 0.561952 > 0.4625
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 7.86391e-24 mean: 0.542795 > 0.480319, median: 0.561952 > 0.472582
- CR vs CS : 0.0463023 mean: 0.466662 < 0.478617, median: 0.464842 > 0.4625
- \bullet CR vs AS_NC : 0.0159111 mean: 0.466662 < 0.480319 , median: 0.464842 < 0.472582

6.11 UPINTRON GCC

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Meaning: GC content of entire up-stream intron sequence

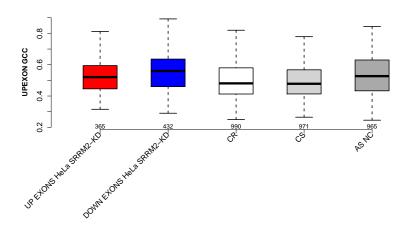


- UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 4.1637e-09 mean: 0.4535 < 0.504815 , median: 0.434109 < 0.503697
- UP_EXONS_HeLa_SRRM2-KD vs CR : 1.79072e-07 mean: 0.4535 > 0.426143 , median: 0.434109 > 0.408785
- UP_EXONS_HeLa_SRRM2-KD vs CS : 0.00036756 mean: 0.4535 > 0.436938 , median: 0.434109 > 0.415066
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 3.73802e-30 mean: 0.504815 > 0.426143 , median: 0.503697 > 0.408785
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 1.34456e-22 mean: 0.504815 > 0.436938 , median: 0.503697 > 0.415066
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 8.5218e-17 mean: 0.504815 > 0.446226 , median: 0.503697 > 0.429279
- \bullet CR vs AS_NC : 7.78529e-07 mean: 0.426143 < 0.446226 , median: 0.408785 < 0.429279
- \bullet CS vs AS_NC : 0.00380415 mean: 0.436938 < 0.446226 , median: 0.415066 < 0.429279

6.12 UPEXON GCC

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Meaning: GC content of entire up-stream exon sequence

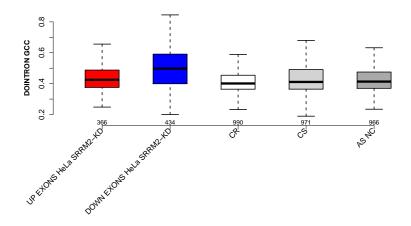


- \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.00301666 mean: 0.52882 < 0.549509 , median: 0.520833 < 0.559868
- UP_EXONS_HeLa_SRRM2-KD vs CR : 7.97156e-06 mean: 0.52882 > 0.502311, median: 0.520833 > 0.480869
- UP_EXONS_HeLa_SRRM2-KD vs CS : 2.54193e-07 mean: 0.52882 > 0.494021, median: 0.520833 > 0.478261
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 2.40493e-13 mean: 0.549509 > 0.502311 , median: 0.559868 > 0.480869
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 4.19294e-17 mean: 0.549509 > 0.494021, median: 0.559868 > 0.478261
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0219542 mean: 0.549509 > 0.53578, median: 0.559868 > 0.527027
- \bullet CS vs AS_NC : 4.97403e-13 mean: 0.494021 < 0.53578 , median: 0.478261 < 0.527027

6.13 DOINTRON GCC

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Meaning: GC content of entire down-stream intron sequence

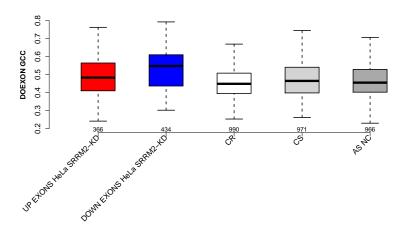


- \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 4.71037e-12 mean: 0.43893 < 0.495065 , median: 0.42467 < 0.497363
- UP_EXONS_HeLa_SRRM2-KD vs CR : 4.17529e-06 mean: 0.43893 > 0.414595, median: 0.42467 > 0.401107
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0293447 mean: 0.43893 > 0.429167 , median: 0.42467 > 0.413334
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 4.41092e-34 mean: 0.495065>0.414595 , median: 0.497363>0.401107
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 6.65922e-20 mean: 0.495065 > 0.434245 , median: 0.497363 > 0.410976
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 8.7796e-24 mean: 0.495065 > 0.429167, median: 0.497363 > 0.413334
- \bullet CR vs CS : 0.00130418 mean: 0.414595 < 0.434245 , median: 0.401107 < 0.410976
- \bullet CR vs AS_NC : 0.000982023 mean: 0.414595 < 0.429167 , median: 0.401107 < 0.413334

6.14 DOEXON GCC

Back to: Overview | ToC

Meaning: GC content of entire down-stream exon sequence



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 8.26255e-09 mean: 0.487847 < 0.530139 , median: 0.482759 < 0.547472

• UP_EXONS_HeLa_SRRM2-KD vs CR : 3.00184e-07 mean: 0.487847 > 0.457746 , median: 0.482759 > 0.44849

• UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0111886 mean: 0.487847 > 0.473126 , median: 0.482759 > 0.464567

• UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.000924438 mean: 0.487847 > 0.46862, median: 0.482759 > 0.455013

• DOWN_EXONS_HeLa_SRRM2-KD vs CR : 1.39237e-33 mean: 0.530139 > 0.457746, median: 0.547472 > 0.44849

• DOWN_EXONS_HeLa_SRRM2-KD vs CS : 2.05434e-21 mean: 0.530139 > 0.473126 , median: 0.547472 > 0.464567

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 6.27616e-25 mean: 0.530139 > 0.46862 , median: 0.547472 > 0.455013

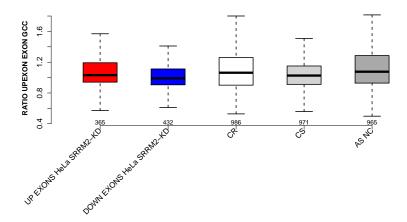
• CR vs CS : 0.00114095 mean: 0.457746 < 0.473126, median: 0.44849 < 0.464567

• CR vs AS_NC : 0.0130057 mean: 0.457746 < 0.46862, median: 0.44849 < 0.455013

6.15 RATIO UPEXON EXON GCC

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Meaning: UPEXON GCC / EXON GCC

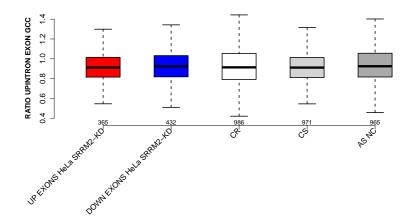


- \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.000479516 mean: 1.0897>1.0324 , median: 1.0318>0.990683
- UP_EXONS_HeLa_SRRM2-KD vs CS : 0.028378 mean: 1.0897 > 1.0484, median: 1.0318 > 1.0263
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00907359 mean: 1.0897 < 1.1443, median: 1.0318 < 1.0764
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 7.96771e-06 mean: 1.0324 < 1.1079, median: 0.990683 < 1.0632
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.0440282 mean: 1.0324 < 1.0484, median: 0.990683 < 1.0263
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 5.59416e-11 mean: 1.0324 < 1.1443, median: 0.990683 < 1.0764
- CR vs CS : 0.000145748 mean: 1.1079 > 1.0484, median: 1.0632 > 1.0263
- CR vs AS_NC : 0.0145385 mean: 1.1079 < 1.1443, median: 1.0632 < 1.0764
- CS vs AS_NC : 2.48106e-10 mean: 1.0484 < 1.1443 , median: 1.0263 < 1.0764

6.16 RATIO UPINTRON EXON GCC

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Meaning: UPINTRON GCC / EXON GCC



Significant results from Mann-Whitney U test:

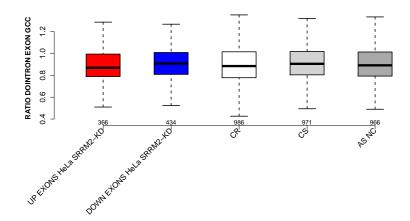
 \bullet CS vs AS_NC : 0.010216

mean: 0.920092 < 0.945663, median: 0.911243 < 0.924701

6.17 RATIO DOINTRON EXON GCC

Back to: Overview | ToC

Meaning: DOINTRON GCC / EXON GCC



Significant results from Mann-Whitney U test:

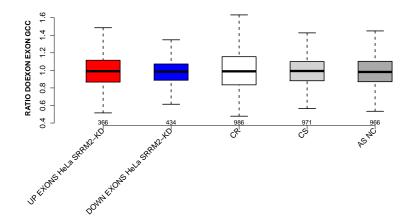
• UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.0170583 mean: 0.897102 < 0.922208 , median: 0.869436 < 0.90813

• UP_EXONS_HeLa_SRRM2-KD vs CS : 0.026216 mean: 0.897102 < 0.914512 , median: 0.869436 < 0.905539

6.18 RATIO DOEXON EXON GCC

Back to: Overview \mid ToC

Meaning: DOEXON GCC / EXON GCC



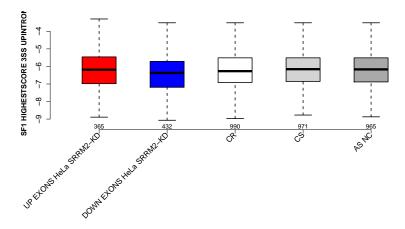
Significant results from Mann-Whitney U test:

 \bullet none

6.19 SF1 HIGHESTSCORE 3SS UPINTRON

Back to: Overview | ToC

Meaning: highest score of a SF1 positon weight matrix trained with human data in the last 150 nt 3 prime intron positons of up-stream intron

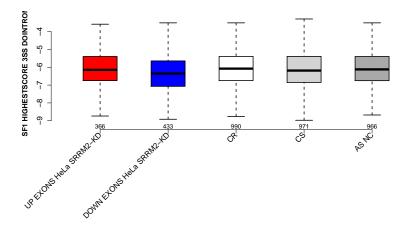


- UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.00412607 mean: -6.18155 > -6.40793, median: -6.18725 > -6.37142
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.000981903 mean: -6.40793 < -6.18548, median: -6.37142 < -6.26872
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 4.86795e-05 mean: -6.40793 < -6.16166 , median: -6.37142 < -6.15674
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 8.71199e-05 mean: -6.40793 < -6.175 , median: -6.37142 < -6.1683

6.20 SF1 HIGHESTSCORE 3SS DOINTRON

Back to: Overview | ToC

Meaning: highest score of a SF1 positon weight matrix trained with human data in the last 150 nt 3 prime intron positons of down-stream intron

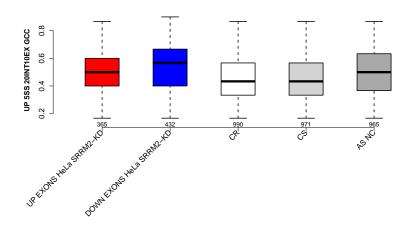


- UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.000244769 mean: -6.11141 > -6.38139, median: -6.14698 > -6.35795
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 7.47846e-07 mean: -6.38139 < -6.08105 , median: -6.35795 < -6.07814
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.000261331 mean: -6.38139 < -6.13717, median: -6.35795 < -6.18725
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 8.14539e-07 mean: -6.38139 < -6.07294, median: -6.35795 < -6.12133

6.21 UP 5SS 20INT10EX GCC

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Meaning: GC content of up-stream 5ss sequence (20int+10ex positions)

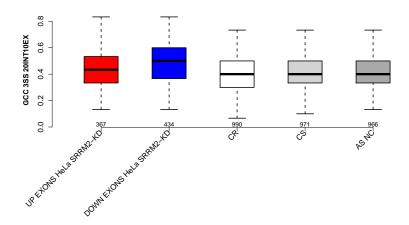


- \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.000301789 mean: 0.497534 < 0.532369 , median: 0.5 < 0.566667
- UP_EXONS_HeLa_SRRM2-KD vs CR : 2.43188e-05 mean: 0.497534 > 0.462508 , median: 0.5 > 0.433333
- UP_EXONS_HeLa_SRRM2-KD vs CS : 0.000166014 mean: 0.497534 > 0.46459, median: 0.5 > 0.433333
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 4.10855e-15 mean: 0.532369 > 0.462508 , median: 0.566667 > 0.433333
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 4.81924e-14 mean: 0.532369 > 0.46459, median: 0.566667 > 0.433333
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.000897789 mean: 0.532369 > 0.504352 , median: 0.566667 > 0.5
- CR vs AS_NC : 5.87147e-09 mean: 0.462508 < 0.504352, median: 0.433333 < 0.5
- CS vs AS_NC : 8.07591e-08 mean: 0.46459 < 0.504352, median: 0.433333 < 0.5

6.22 GCC 3SS 20INT10EX

Back to: Overview | ToC

Meaning: GC content of 3ss sequence (20int+10ex positions)



Significant results from Mann-Whitney U test:

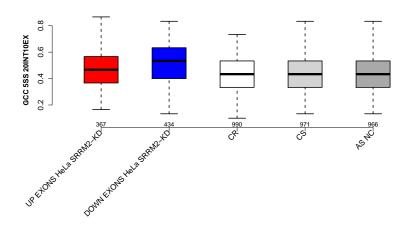
- UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 3.86971e-10 mean: 0.431789 < 0.496697 , median: 0.433333 < 0.5
- UP_EXONS_HeLa_SRRM2-KD vs CR : 0.00168598 mean: 0.431789 > 0.404343 , median: 0.433333 > 0.4
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 2.40928e-28 mean: 0.496697 > 0.404343, median: 0.5 > 0.4
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 1.81944e-20 mean: 0.496697 > 0.419258, median: 0.5 > 0.4
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 9.83053e-22 mean: 0.496697 > 0.416598 , median: 0.5 > 0.4
- CR vs CS: 0.0324977

mean: 0.404343 < 0.419258, median: 0.4 = 0.4

6.23 GCC 5SS 20INT10EX

Back to: Overview | ToC

Meaning: GC content of 5ss sequence (20int+10ex positions)

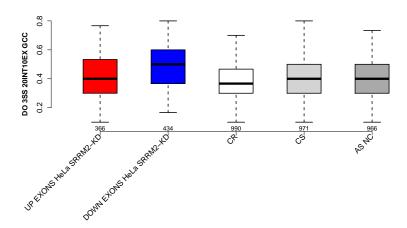


- UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 1.0612e-08 mean: 0.470663 < 0.52788, median: 0.466667 < 0.533333
- UP_EXONS_HeLa_SRRM2-KD vs CR : 9.41976e-06 mean: 0.470663 > 0.434747, median: 0.466667 > 0.433333
- UP_EXONS_HeLa_SRRM2-KD vs CS : 0.00272399 mean: 0.470663 > 0.448266 , median: 0.466667 > 0.433333
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00130321 mean: 0.470663 > 0.446135 , median: 0.466667 > 0.433333
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 9.09896e-28 mean: 0.52788 > 0.434747, median: 0.533333 > 0.433333
- \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CS : 2.64857e-20 mean: 0.52788 > 0.448266 , median: 0.533333 > 0.433333
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 7.60984e-22 mean: 0.52788 > 0.446135, median: 0.533333 > 0.433333

6.24 DO 3SS 20INT10EX GCC

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Meaning: GC content of down-stream 3ss sequence (20int+10ex positions)

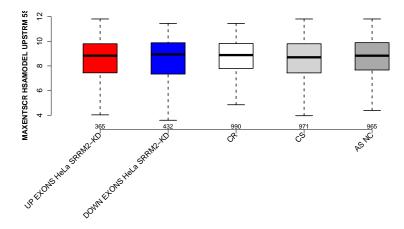


- \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 1.56969e-10 mean: 0.42204 < 0.48725 , median: 0.4 < 0.5
- UP_EXONS_HeLa_SRRM2-KD vs CR : 0.000851897 mean: 0.42204 > 0.392088, median: 0.4 > 0.366667
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0203796 mean: 0.42204 > 0.40138, median: 0.4 = 0.4
- \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CR : 1.03072e-31 mean: 0.48725 > 0.392088 , median: 0.5 > 0.366667
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 1.33012e-17 mean: 0.48725 > 0.417061, median: 0.5 > 0.4
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 5.99554e-26 mean: 0.48725 > 0.40138, median: 0.5 > 0.4
- CS vs AS_NC : 0.0106043 mean: 0.417061 > 0.40138, median: 0.4 = 0.4

6.25 MAXENTSCR HSAMODEL UPSTRM 5SS

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Meaning: maximum entropy score of 5ss of up-stream exon using a model trained with human splice sites



Significant results from Mann-Whitney U test:

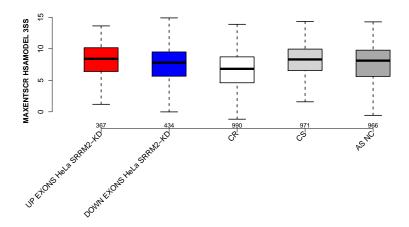
 \bullet CR vs CS : 0.0253439

mean: 8.5625 > 8.3674, median: 8.88 > 8.7

6.26 MAXENTSCR HSAMODEL 3SS

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Meaning: maximum entropy score of 3ss using a model trained with human splice sites

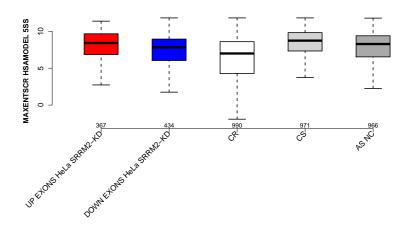


- UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.000295082 mean: 7.9072 > 6.9991 , median: 8.41 > 7.795
- UP_EXONS_HeLa_SRRM2-KD vs CR : 8.95128e-17 mean: 7.9072 > 6.116, median: 8.41 > 6.82
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0110205 mean: 7.9072 > 7.3247, median: 8.41 > 8.12
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 4.76243e-06 mean: 6.9991 > 6.116, median: 7.795 > 6.82
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 2.56371e-05 mean: 6.9991 < 7.9083, median: 7.795 < 8.31
- CR vs CS : 2.04338e-29 mean: 6.116 < 7.9083, median: 6.82 < 8.31
- \bullet CR vs AS_NC : 1.32736e-14 mean: 6.116 < 7.3247 , median: 6.82 < 8.12

6.27 MAXENTSCR HSAMODEL 5SS

Back to: Overview | ToC

Meaning: maximum entropy score of 5ss using a model trained with human splice sites



Significant results from Mann-Whitney U test:

- \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 4.85744e-06 mean: 7.8765>6.7108 , median: 8.41>7.835
- UP_EXONS_HeLa_SRRM2-KD vs CR : 2.36346e-21 mean: 7.8765 > 5.8762, median: 8.41 > 6.99
- UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0323494 mean: 7.8765 < 8.2229, median: 8.41 < 8.73
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0169897 mean: 7.8765 > 7.5422, median: 8.41 > 8.27
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 4.95122e-07 mean: 6.7108 > 5.8762, median: 7.835 > 6.99
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 1.13343e-15 mean: 6.7108 < 8.2229, median: 7.835 < 8.73
- \bullet DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00108818 mean: 6.7108 < 7.5422 , median: 7.835 < 8.27
- \bullet CR vs CS : 1.06918e-55

mean: 5.8762 < 8.2229, median: 6.99 < 8.73

 \bullet CR vs AS_NC : 9.15745e-25

mean: 5.8762 < 7.5422, median: 6.99 < 8.27

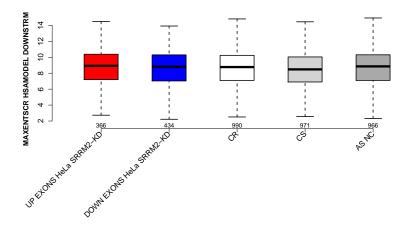
• CS vs $AS_NC : 3.52114e-10$

mean: 8.2229 > 7.5422, median: 8.73 > 8.27

6.28 MAXENTSCR HSAMODEL DOWNSTRM 3SS

Back to: Overview | ToC

Meaning: maximum entropy score of 3ss of down-stream exon using a model trained with human splice sites



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0240878 mean: 8.55 > 8.2961 , median: 8.92 > 8.48

• CR vs CS: 0.0254391

mean: 8.5701 > 8.2961, median: 8.77 > 8.48

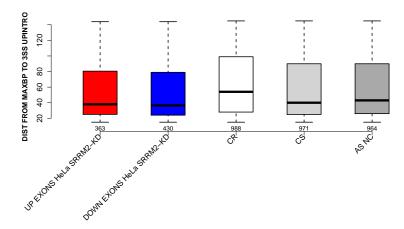
 \bullet CS vs AS_NC : 0.01275

mean: 8.2961 < 8.5799, median: 8.48 < 8.855

6.29 DIST FROM MAXBP TO 3SS UPINTRON

Back to: Overview | ToC

Meaning: distance to 3ss of best precited BP



Significant results from Mann-Whitney U test:

- \bullet UP_EXONS_HeLa_SRRM2-KD vs CR : 0.000105164 mean: 54.8457 < 64.3188 , median: 38 < 54
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 1.48045e-06 mean: 54.3977 < 64.3188, median: 36.5 < 54
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0148491 mean: 54.3977 < 58.862 , median: 36.5 < 43
- CR vs CS : 6.4207e-05

mean: 64.3188 > 57.965, median: 54 > 40

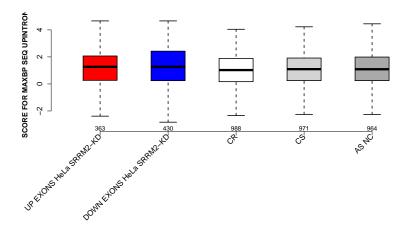
 \bullet CR vs AS_NC : 0.00128324

mean: 64.3188 > 58.862, median: 54 > 43

6.30 SCORE FOR MAXBP SEQ UPINTRON

Back to: Overview | ToC

Meaning: BP sequence score of best predicted BP



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs CR : 0.0471439 mean: 1.1764 > 1.0163 , median: 1.2657 > 1.0265

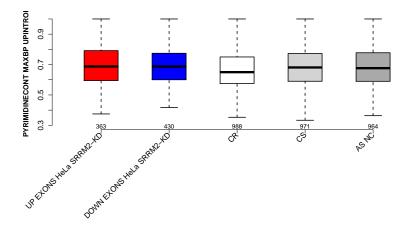
• DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.00464972 mean: 1.2781 > 1.0163, median: 1.2618 > 1.0265

• DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.0442659 mean: 1.2781 > 1.0983 , median: 1.2618 > 1.094

6.31 PYRIMIDINECONT MAXBP UPINTRON

Back to: Overview | ToC

Meaning: Pyrimidine content between the BP adenine and the 3 prime splice site for best BP $\,$



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs CR : 9.34981e-05 mean: 0.694448 > 0.663459 , median: 0.6875 > 0.65

• DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.000159857 mean: 0.688082 > 0.663459 , median: 0.686887 > 0.65

 \bullet CR vs CS : 0.000128786

mean: 0.663459 < 0.684265, median: 0.65 < 0.680851

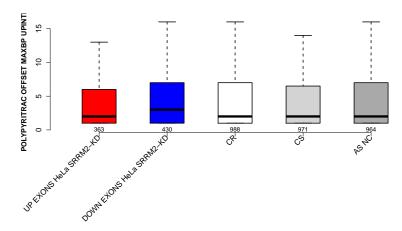
 \bullet CR vs AS_NC : 0.000303368

mean: 0.663459 < 0.683134, median: 0.65 < 0.676263

6.32 POLYPYRITRAC OFFSET MAXBP UPINTRON

Back to: Overview | ToC

Meaning: Polypyrimidine track offset relative to the BP adenine for best BP



Significant results from Mann-Whitney U test:

 \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.00333382 mean: 4.022 < 5.2512 , median: 2 < 3

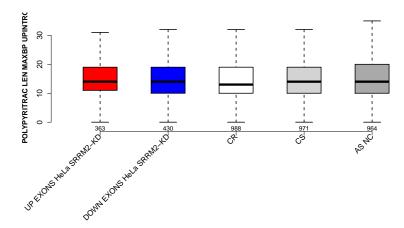
 \bullet UP_EXONS_HeLa_SRRM2-KD vs CR : 0.0435029 mean: 4.022 < 4.8097 , median: 2=2

 • DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.0338954 mean: 5.2512>4.6787 , median: 3>2

6.33 POLYPYRITRAC LEN MAXBP UPINTRON

Back to: Overview | ToC

Meaning: Polypyrimidine track length for best BP



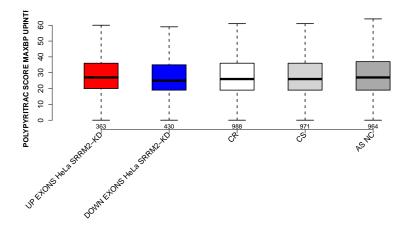
Significant results from Mann-Whitney U test:

• none

6.34 POLYPYRITRAC SCORE MAXBP UPINTRON

Back to: Overview | ToC

Meaning: Polypyrimidine track score for best BP



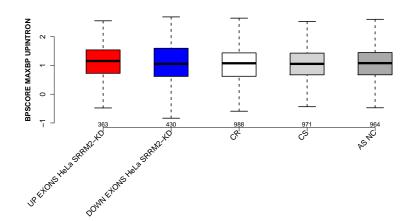
Significant results from Mann-Whitney U test:

• none

6.35 BPSCORE MAXBP UPINTRON

Back to: Overview | ToC

Meaning: SVM classification score of best BP



Significant results from Mann-Whitney U test:

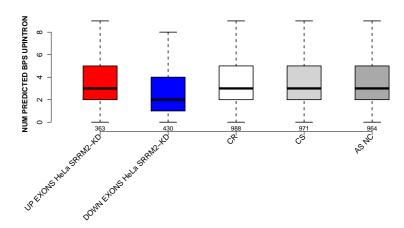
• UP_EXONS_HeLa_SRRM2-KD vs CR : 0.00642225 mean: 1.1175 > 0.995891 , median: 1.1542 > 1.0755

• UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0229064 mean: 1.1175 > 1.0327, median: 1.1542 > 1.0543

6.36 NUM PREDICTED BPS UPINTRON

Back to: Overview | ToC

Meaning: number of all predicted BPs which have a positive BP score



Significant results from Mann-Whitney U test:

 $\bullet \ \mathtt{UP_EXONS_HeLa_SRRM2-KD} \ vs \ \mathtt{DOWN_EXONS_HeLa_SRRM2-KD} : 0.000457418$

mean: 3.259>2.8256 , median: 3>2

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CR : 1.79174e-05

mean: 2.8256 < 3.3209 , median: 2 < 3

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CS : 4.40556e-07

mean: 2.8256 < 3.38, median: 2 < 3

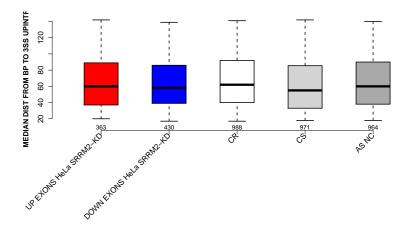
• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC: 5.27356e-06

mean: 2.8256 < 3.2967 , median: 2 < 3

6.37 MEDIAN DIST FROM BP TO 3SS UPINTRON

Back to: Overview | ToC

Meaning: like DIST FROM MAXBP TO 3SS but median over top-3 predicted BPs



Significant results from Mann-Whitney U test:

 \bullet CR vs CS: 5.05486e-05

mean: 67.0521 > 62.0391, median: 62 > 55

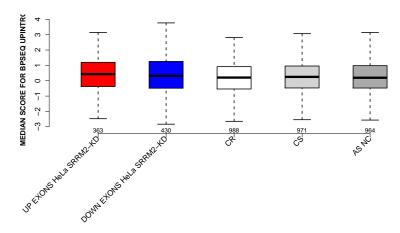
 \bullet CS vs AS_NC : 0.0114737

mean: 62.0391 < 65.1291, median: 55 < 60

6.38 MEDIAN SCORE FOR BPSEQ UPINTRON

Back to: Overview | ToC

Meaning: like SCORE FOR MAXBP SEQ but median over top-3 predicted BPs



Significant results from Mann-Whitney U test:

 \bullet UP_EXONS_HeLa_SRRM2-KD vs CR : 0.00175825 mean: 0.404782>0.17589 , median: 0.431363>0.206175

• UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0237284 mean: 0.404782>0.24818 , median: 0.431363>0.25016

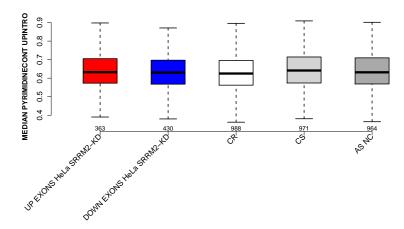
• UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0136168 mean: 0.404782 > 0.228412, median: 0.431363 > 0.194796

• DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.0179424 mean: 0.40046 > 0.17589 , median: 0.32056 > 0.206175

6.39 MEDIAN PYRIMIDINECONT UPINTRON

Back to: Overview | ToC

Meaning: like PYRIMIDINECONT MAXBP but median over top-3 predicted BPs



Significant results from Mann-Whitney U test:

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.0416982

mean: 0.63443 < 0.647334, median: 0.629949 < 0.641304

 \bullet CR vs CS : 0.000347505

mean: 0.630736 < 0.647334, median: 0.625 < 0.641304

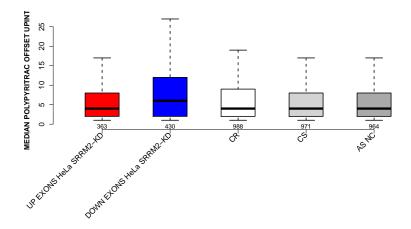
 \bullet CR vs AS_NC : 0.0404775

mean: 0.630736 < 0.640556, median: 0.625 < 0.631579

6.40 MEDIAN POLYPYRITRAC OFFSET UPINTRON

Back to: Overview | ToC

Meaning: like POLYPYRITRAC OFFSET MAXBP but median over top-3 predicted ${\rm BPs}$

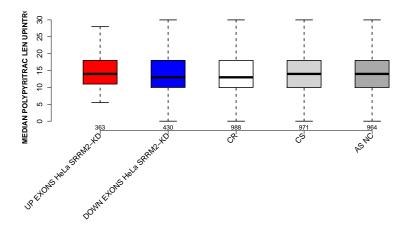


- UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.00137489 mean: 7.1033 < 9.9256, median: 4 < 6
- \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.000138132 mean: 9.9256>6.9408 , median: 6>4
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 1.20755e-05 mean: 9.9256 > 6.7853 , median: 6 > 4

6.41 MEDIAN POLYPYRITRAC LEN UPINTRON

Back to: Overview \mid ToC

Meaning: like POLYPYRITRAC LEN MAXBP but median over top-3 predicted BPs $\,$



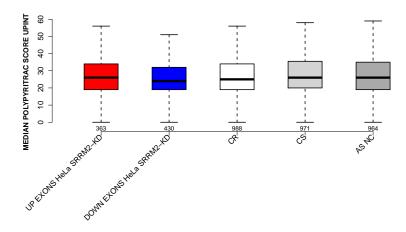
Significant results from Mann-Whitney U test:

 \bullet none

6.42 MEDIAN POLYPYRITRAC SCORE UPINTRON

Back to: Overview | ToC

Meaning: like POLYPYRITRAC SCORE MAXBP but median over top-3 predicted BPs



Significant results from Mann-Whitney U test:

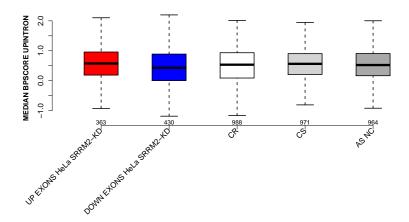
• DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.0075394 mean: 28.0174 < 29.0623 , median: 24 < 26

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0447533 mean: 28.0174 < 29.4803, median: 24 < 26

6.43 MEDIAN BPSCORE UPINTRON

Back to: Overview | ToC

Meaning: like BPSCORE MAXBP but median over top-3 predicted BPs



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.00671989 mean: 0.493938 > 0.305461 , median: 0.574725 > 0.432173

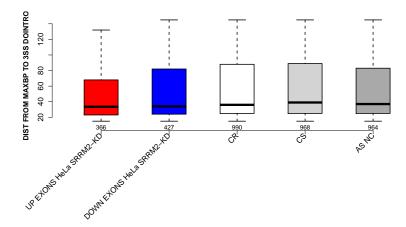
• DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.00975043 mean: 0.305461 < 0.464061 , median: 0.432173 < 0.563698

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.039447 mean: 0.305461 < 0.45823 , median: 0.432173 < 0.524034

6.44 DIST FROM MAXBP TO 3SS DOINTRON

Back to: Overview | ToC

Meaning: distance to 3ss of best precited BP



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs CR : 0.00858644 mean: 50.2787 < 56.1111 , median: 33.5 < 36

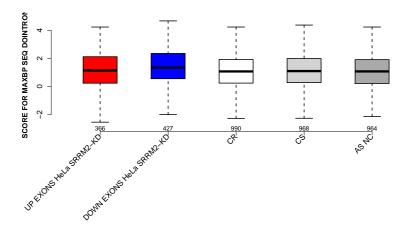
• UP_EXONS_HeLa_SRRM2-KD vs CS : 0.00150682 mean: 50.2787 < 57.4432, median: 33.5 < 39

• UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0115334 mean: 50.2787 < 55.3278 , median: 33.5 < 37

6.45 SCORE FOR MAXBP SEQ DOINTRON

Back to: Overview | ToC

Meaning: BP sequence score of best predicted BP

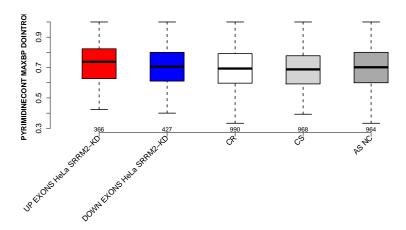


- \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.0138046 mean: 1.1394<1.4247 , median: 1.1382<1.3439
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 1.75231e-05 mean: 1.4247 > 1.0573, median: 1.3439 > 1.0693
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.000886055 mean: 1.4247 > 1.1497, median: 1.3439 > 1.0944
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 1.54644e-05 mean: 1.4247 > 1.0697, median: 1.3439 > 1.071

6.46 PYRIMIDINECONT MAXBP DOINTRON

Back to: Overview | ToC

Meaning: Pyrimidine content between the BP adenine and the 3 prime splice site for best BP

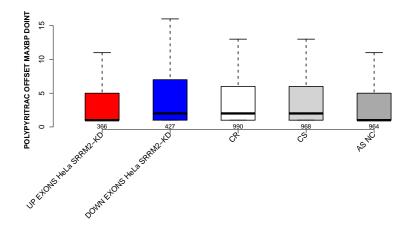


- UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.00203941 mean: 0.729466 > 0.702527 , median: 0.737986 > 0.705882
- UP_EXONS_HeLa_SRRM2-KD vs CR : 3.07904e-05 mean: 0.729466 > 0.698654 , median: 0.737986 > 0.693441
- UP_EXONS_HeLa_SRRM2-KD vs CS : 2.4852e-07 mean: 0.729466 > 0.690432, median: 0.737986 > 0.687906
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.000212971 mean: 0.729466 > 0.700665 , median: 0.737986 > 0.701941
- CS vs AS_NC : 0.0469293 mean: 0.690432 < 0.700665, median: 0.687906 < 0.701941

6.47 POLYPYRITRAC OFFSET MAXBP DOINTRON

Back to: Overview | ToC

Meaning: Polypyrimidine track offset relative to the BP adenine for best BP



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD: 0.00174515

mean: 3.6284 < 5.0023 , median: 1 < 2

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.0464268

mean: 5.0023 > 4.0576 , median: $2\,=\,2$

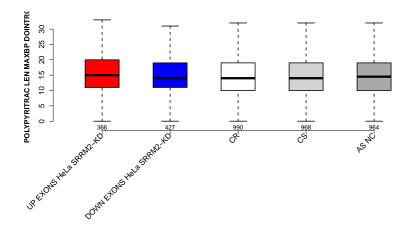
 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00175663

mean: 5.0023 > 3.8029, median: 2 > 1

6.48 POLYPYRITRAC LEN MAXBP DOINTRON

Back to: Overview | ToC

Meaning: Polypyrimidine track length for best BP



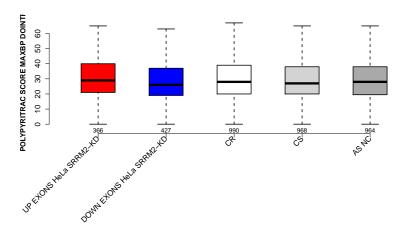
Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0272346 mean: 16.5902 > 15.657, median: 15 > 14

6.49 POLYPYRITRAC SCORE MAXBP DOINTRON

Back to: Overview | ToC

Meaning: Polypyrimidine track score for best BP



Significant results from Mann-Whitney U test:

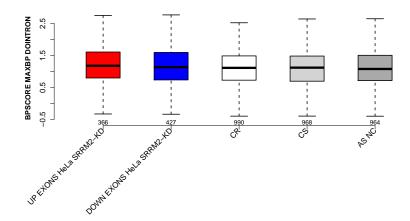
 \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.00903194 mean: 32.8962>30.3115 , median: 29>26

• UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0232612 mean: 32.8962 > 30.6725 , median: 29 > 27

6.50 BPSCORE MAXBP DOINTRON

Back to: Overview | ToC

Meaning: SVM classification score of best BP

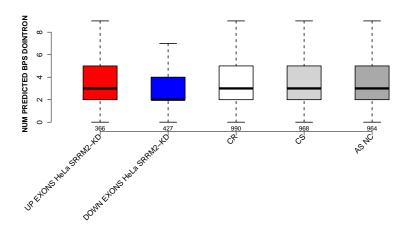


- UP_EXONS_HeLa_SRRM2-KD vs CR : 0.0281861 mean: 1.1603 > 1.0757 , median: 1.1758 > 1.111
- UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0240945 mean: 1.1603 > 1.0756 , median: 1.1758 > 1.1174
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0232608 mean: 1.1603 > 1.093, median: 1.1758 > 1.0761
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.0401727 mean: 1.1522 > 1.0756 , median: 1.1323 > 1.1174
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0384904 mean: 1.1522 > 1.093, median: 1.1323 > 1.0761

6.51 NUM PREDICTED BPS DOINTRON

Back to: Overview | ToC

Meaning: number of all predicted BPs which have a positive BP score



Significant results from Mann-Whitney U test:

 $\bullet \mathtt{UP_EXONS_HeLa_SRRM2-KD} \ vs \ \mathtt{DOWN_EXONS_HeLa_SRRM2-KD} : 9.11096e\text{-}06 \\$

mean: 3.5137>2.9391 , median: 3>2

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CR : 1.00471e-09

mean: 2.9391 < 3.5889, median: 2 < 3

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CS : 5.61913e-05

mean: 2.9391 < 3.3554, median: 2 < 3

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC: 1.30903e-07

mean: 2.9391 < 3.555, median: 2 < 3

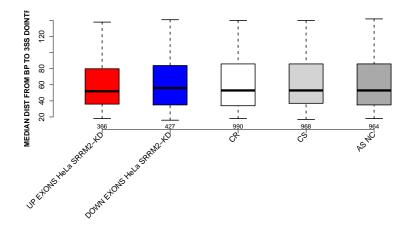
 \bullet CR vs CS: 0.00806785

mean: 3.5889 > 3.3554, median: 3 = 3

6.52 MEDIAN DIST FROM BP TO 3SS DOINTRON

Back to: Overview | ToC

Meaning: like DIST FROM MAXBP TO 3SS but median over top-3 predicted BPs $\,$



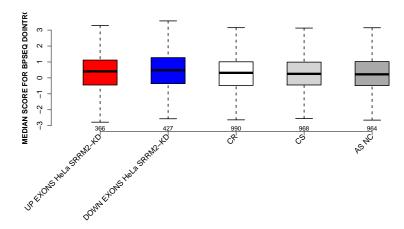
Significant results from Mann-Whitney U test:

 \bullet none

6.53 MEDIAN SCORE FOR BPSEQ DOINTRON

Back to: Overview | ToC

Meaning: like SCORE FOR MAXBP SEQ but median over top-3 predicted BPs



Significant results from Mann-Whitney U test:

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.0116843 mean: 0.469125>0.29346 , median: 0.48498>0.318954

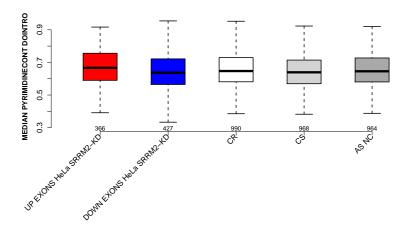
• DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.00438641 mean: 0.469125>0.276759 , median: 0.48498>0.25525

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00259727 mean: 0.469125 > 0.268251 , median: 0.48498 > 0.225732

6.54 MEDIAN PYRIMIDINECONT DOINTRON

Back to: Overview | ToC

Meaning: like PYRIMIDINECONT MAXBP but median over top-3 predicted BPs



Significant results from Mann-Whitney U test:

 \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.00265973 mean: 0.669052>0.64526 , median: 0.666667>0.636364

• UP_EXONS_HeLa_SRRM2-KD vs CR : 0.0266018 mean: 0.669052 > 0.655231 , median: 0.666667 > 0.647059

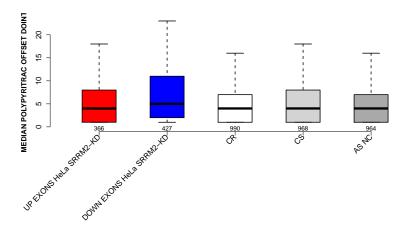
• UP_EXONS_HeLa_SRRM2-KD vs CS : 0.000450926 mean: 0.669052 > 0.646648 , median: 0.666667 > 0.639297

 \bullet UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0116033 mean: 0.669052>0.652623 , median: 0.666667>0.64561

6.55 MEDIAN POLYPYRITRAC OFFSET DOINTRON

Back to: Overview | ToC

Meaning: like POLYPYRITRAC OFFSET MAXBP but median over top-3 predicted ${\rm BPs}$

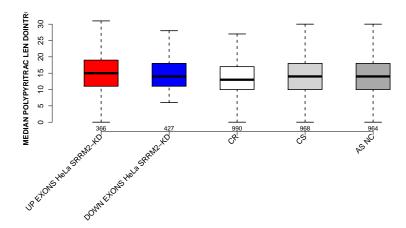


- \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.00121245 mean: 7.168 < 9.2951 , median: 4 < 5
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.000100362 mean: 9.2951 > 6.735 , median: 5 > 4

6.56 MEDIAN POLYPYRITRAC LEN DOINTRON

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Meaning: like POLYPYRITRAC LEN MAXBP but median over top-3 predicted BPs



Significant results from Mann-Whitney U test:

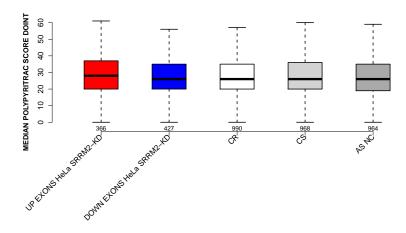
• UP_EXONS_HeLa_SRRM2-KD vs CR : 0.00307377 mean: 16.3784 > 14.8793 , median: 15 > 13

• DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.043644 mean: 15.7248 > 14.8793, median: 14 > 13

6.57 MEDIAN POLYPYRITRAC SCORE DOINTRON

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Meaning: like POLYPYRITRAC SCORE MAXBP but median over top-3 predicted BPs



Significant results from Mann-Whitney U test:

 \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.0451431 mean: 31.7842>29.1194 , median: 28>26

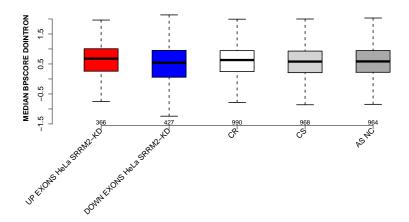
• UP_EXONS_HeLa_SRRM2-KD vs CR : 0.0330349 mean: 31.7842 > 29.2854, median: 28 > 26

• UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0273476 mean: 31.7842 > 28.9907, median: 28 > 26

6.58 MEDIAN BPSCORE DOINTRON

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Meaning: like BPSCORE MAXBP but median over top-3 predicted BPs



Significant results from Mann-Whitney U test:

 \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.0210131 mean: 0.507982>0.384542 , median: 0.678938>0.539312

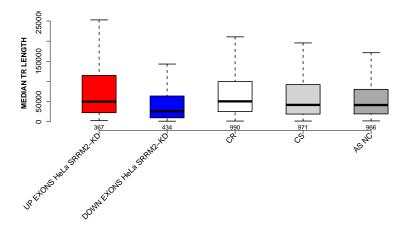
• UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0498484 mean: 0.507982 > 0.488739 , median: 0.678938 > 0.579906

• DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.047356 mean: 0.384542 < 0.515359 , median: 0.539312 < 0.630977

6.59 MEDIAN TR LENGTH

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Meaning: median length of transcripts the exon occurs in

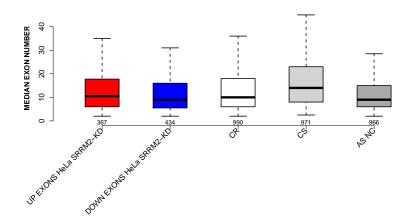


- UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 4.03696e-13 mean: 88262.4046 > 53265.4908, median: 49607 > 25834.75
- UP_EXONS_HeLa_SRRM2-KD vs CS : 0.00447684 mean: 88262.4046 > 68708.6756 , median: 49607 > 41598.5
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.000645794 mean: 88262.4046 > 66112.1755, median: 49607 > 41305
- \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CR : 3.35973e-20 mean: 53265.4908 < 81150.9485 , median: 25834.75 < 50445.25
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 1.16178e-09 mean: 53265.4908 < 68708.6756, median: 25834.75 < 41598.5
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 8.52665e-09 mean: 53265.4908 < 66112.1755, median: 25834.75 < 41305
- CR vs AS_NC : 4.75396e-07 mean: 81150.9485 > 66112.1755 , median: 50445.25 > 41305

6.60 MEDIAN EXON NUMBER

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Meaning: ... of transcripts where exon was found in



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs CS : 1.28265e-09 mean: 13.7289 < 18.0505, median: 10.5 < 14

• UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0295277 mean: 13.7289 > 12.0538, median: 10.5 > 9

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CR : 0.00277257 mean: 12.568 < 13.6091 , median: 9 < 10

• DOWN_EXONS_HeLa_SRRM2-KD vs CS : 5.57496e-20 mean: 12.568 < 18.0505, median: 9 < 14

• CR vs CS : 2.62364e-16

mean: 13.6091 < 18.0505, median: 10 < 14

 \bullet CR vs AS_NC : 0.000430468

mean: 13.6091 > 12.0538, median: 10 > 9

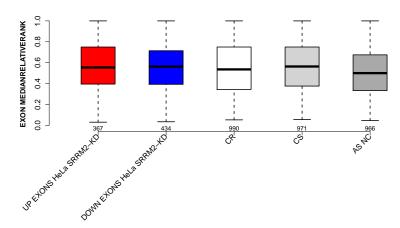
 \bullet CS vs AS_NC : 7.58307e-31

mean: 18.0505 > 12.0538, median: 14 > 9

6.61 EXON MEDIANRELATIVERANK

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Meaning: relative rank = rank / number of all exons in transcript, is between 0 and 1



Significant results from Mann-Whitney U test:

• UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00187693 mean: 0.56138 > 0.518128 , median: 0.553571 > 0.5

• DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0015476 mean: 0.556216 > 0.518128 , median: 0.5625 > 0.5

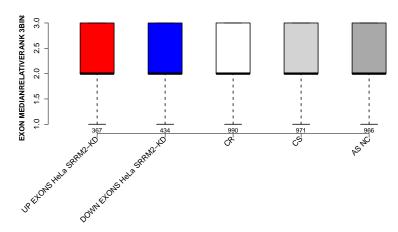
 \bullet CS vs AS_NC : 7.03048e-06

mean: 0.562272 > 0.518128, median: 0.563492 > 0.5

6.62 EXON MEDIANRELATIVERANK 3BINS

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Meaning: median bin into which EXON MEDIANRELATIVERANK falls when binning 0-1 into 3 bins



Significant results from Mann-Whitney U test:

 \bullet UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00702541

mean: 2.188 > 2.0673, median: 2 = 2

 \bullet DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00313312

mean: 2.1935 > 2.0673, median: 2 = 2

 \bullet CR vs AS_NC : 0.0119823

mean: 2.1495 > 2.0673, median: 2 = 2

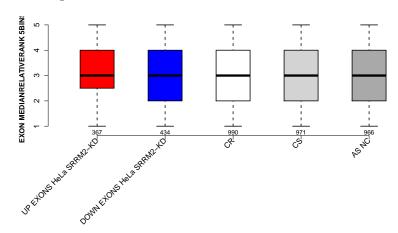
 \bullet CS vs AS_NC : 7.91997e-05

mean: 2.1988 > 2.0673, median: 2 = 2

6.63 EXON MEDIANRELATIVERANK 5BINS

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Meaning: similar to EXON MEDIANRELATIVERANK 3BINS with 5 bins

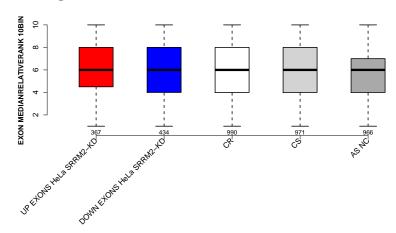


- \bullet UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00207938
 - mean: 3.3052>3.0901 , median: 3=3
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC: 0.00668966
 - mean: 3.2696 > 3.0901, median: 3 = 3
- \bullet CR vs AS_NC : 0.0062452
 - mean: 3.2404 > 3.0901, median: 3 = 3
- \bullet CS vs AS_NC : 8.23835e-05
 - mean: 3.3007 > 3.0901, median: 3 = 3

6.64 EXON MEDIANRELATIVERANK 10BINS

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Meaning: similar to EXON MEDIANRELATIVERANK 3BINS with 10 bins

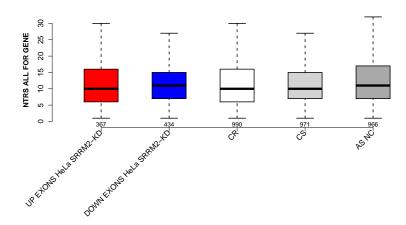


- \bullet UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00113073 mean: 6.1608 > 5.7091 , median: 6=6
- \bullet DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00216811
- mean: 6.0829 > 5.7091, median: 6 = 6
- CR vs AS_NC : 0.00265021 mean: 6.0333 > 5.7091, median: 6 = 6
- \bullet CS vs AS_NC : 1.20853e-05
 - mean: 6.1514 > 5.7091, median: 6 = 6

6.65 NTRS ALL FOR GENE

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Meaning: number of transcripts of gene where the exon was found in



Significant results from Mann-Whitney U test:

 \bullet UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00455505 mean: 12.6649 < 13.2867 , median: 10 < 11

 \bullet CR vs AS_NC : 0.00109117

mean: 12.4434 < 13.2867, median: 10 < 11

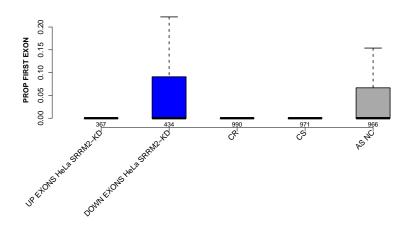
 \bullet CS vs AS_NC : 2.71284e-05

mean: 11.724 < 13.2867, median: 10 < 11

6.66 PROP FIRST EXON

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Meaning: NTRS WITH EXON AS FIRST EXON / NTRS WITH EXON



Significant results from Mann-Whitney U test:

- \bullet UP_EXONS_HeLa_SRRM2-KD vs DOWN_EXONS_HeLa_SRRM2-KD : 0.0219221 mean: 0.0488415 < 0.0646191 , median: 0=0
- UP_EXONS_HeLa_SRRM2-KD vs CR : 1.02424e-11 mean: 0.0488415 > 0.0159733 , median: 0 = 0
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 2.69019e-24 mean: 0.0646191 > 0.0159733 , median: 0 = 0
- DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.00307242 mean: 0.0646191 > 0.0470158 , median: 0 = 0
- \bullet CR vs CS : 2.33653e-16

mean: 0.0159733 < 0.0470158, median: 0 = 0

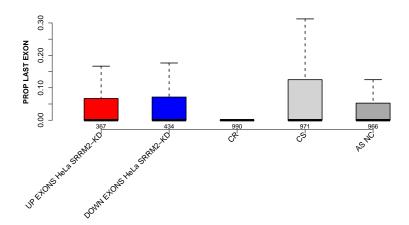
• CR vs AS_NC : 1.25816e-23

mean: 0.0159733 < 0.052035, median: 0 = 0

6.67 PROP LAST EXON

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Meaning: NTRS WITH EXON AS LAST EXON / NTRS WITH EXON



Significant results from Mann-Whitney U test:

- UP_EXONS_HeLa_SRRM2-KD vs CR : 1.72795e-24 mean: 0.0586695 > 0.00975332, median: 0 = 0
- UP_EXONS_HeLa_SRRM2-KD vs CS : 0.0245278 mean: 0.0586695 < 0.0709814, median: 0 = 0
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 2.77688e-29 mean: 0.0588345 > 0.00975332 , median: 0 = 0
- CR vs CS: 9.61347e-49

mean: 0.00975332 < 0.0709814, median: 0 = 0

• CR vs AS_NC: 1.9314e-33

mean: 0.00975332 < 0.0459006, median: 0 = 0

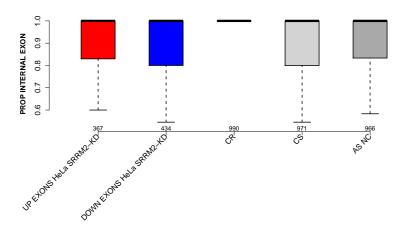
 \bullet CS vs AS_NC: 0.000233315

mean: 0.0709814 > 0.0459006, median: 0 = 0

6.68 PROP INTERNAL EXON

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Meaning: NTRS WITH EXON AS INTERNAL EXON / NTRS WITH EXON

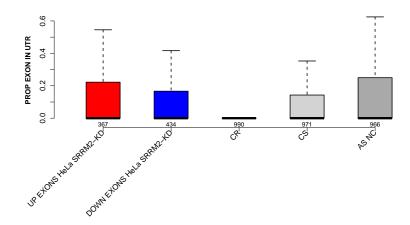


- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 3.07211e-47 mean: 0.87726 < 0.974506 , median: 1=1
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0204033 mean: 0.87726 < 0.90406, median: 1 = 1
- CR vs AS_NC : 5.30105e-50 mean: 0.974506 > 0.90406, median: 1 = 1
- CS vs AS_NC : 0.0115402 mean: 0.882383 < 0.90406, median: 1 = 1

6.69 PROP EXON IN UTR

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Meaning: NTRS WITH EXON IN UTR / NTRS WITH EXON



- UP_EXONS_HeLa_SRRM2-KD vs CR : 2.28704e-21 mean: 0.138013 > 0.0318968, median: 0 = 0
- UP_EXONS_HeLa_SRRM2-KD vs CS : 0.016905 mean: 0.138013 > 0.100925, median: 0 = 0
- UP_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.0236651 mean: 0.138013 < 0.153574 , median: 0 = 0
- DOWN_EXONS_HeLa_SRRM2-KD vs CR : 1.89143e-23 mean: 0.11997 > 0.0318968 , median: 0 = 0
- \bullet DOWN_EXONS_HeLa_SRRM2-KD vs CS : 0.0281205 mean: 0.11997 > 0.100925 , median: 0=0
- DOWN_EXONS_HeLa_SRRM2-KD vs AS_NC : 0.00277005 mean: 0.11997 < 0.153574 , median: 0 = 0
- CR vs CS : 9.76229e-20 mean: 0.0318968 < 0.100925, median: 0 = 0
- CR vs AS_NC : 6.81448e-54 mean: 0.0318968 < 0.153574 , median: 0 = 0
- CS vs AS_NC : 9.54238e-11 mean: 0.100925 < 0.153574, median: 0 = 0