

SPAR outputs and report page

Landing results page (full view)

analysis, annotation, visualization of small RNA sequencing experiments
discover and characterize small RNAs from sequencing

Analysis results for job **ca8ac37**

Input files:
http://dashr2.lisanwanglab.org/DASHRv2/tracks/hg38/ENCODE_dataportal_hg38/frontal-cortex-rep1_ENCSR000AFS.pos.bigWig
http://dashr2.lisanwanglab.org/DASHRv2/tracks/hg38/ENCODE_dataportal_hg38/frontal-cortex-rep1_ENCSR000AFS.neg.bigWig

[Link to results: http://tesla.pcbi.upenn.edu/~plukcsa/SPAR/SPAR_out/ca8ac37](#) (will be kept for 2 weeks)
[Link to results: Download results \(ZIP\)](#) (will be kept for 2 weeks)

RUN SUMMARY

Reads vs RNA class

| RNA Class | Percentage |
|--------------|------------|
| Unannotated | 54.50% |
| miRNAprimary | 7.19% |
| mir-3p | 7.19% |
| mi-5p | 3.22% |
| mi-5p3pno | 17.13% |
| piRNA | |
| rRNA | |
| snoRNA | |
| 5S3 | |
| 5S5 | |
| 5SNA | |

Peaks vs RNA class

| RNA Class | Percentage |
|--------------|------------|
| Unannotated | 78.62% |
| miRNAprimary | |
| mir-3p | |
| mi-5p | |
| mi-5p3pno | |
| piRNA | |
| rRNA | |
| snoRNA | |
| 5S3 | |
| 5S5 | |
| 5SNA | |

[Show more](#)

- [INTERACTIVE PEAK BROWSER](#) +
- [VIEW IN GENOME BROWSER](#) +
- [PLOTS](#) +
- [DOWNLOAD RESULTS](#) +
- [RUN LOG](#) +

Questions?
SPAR@lisanwanglab.org
Wang Lab | Penn Neurodegeneration Genomics Center | University of Pennsylvania

Landing results / outputs page (top)



analysis, annotation, visualization of small RNA sequencing experiments
discover and characterize small RNAs from sequencing

Analysis results for job **ca8ac37**

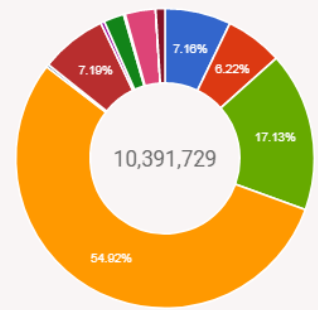
Input files:
http://dasher2.lisanwanglab.org/DASHRv2/tracks/hg38/ENCODE_dataportal_hg38/frontal-cortex-rep1_ENCSR000AFS.pos.bigWig
http://dasher2.lisanwanglab.org/DASHRv2/tracks/hg38/ENCODE_dataportal_hg38/frontal-cortex-rep1_ENCSR000AFS.pos.bigWig

Link to results: http://tesla.pcbi.upenn.edu/~pkuksa/SPAR/SPAR_out/ca8ac37 (will be kept for 2 weeks)
Link to results: [Download results \(ZIP\)](#) (will be kept for 2 weeks)

To view a report (in html / pdf): Click
“Link to
results: https://www.lisanwanglab.org/SPAR/SPAR_out/ca8ac37”

RUN SUMMARY

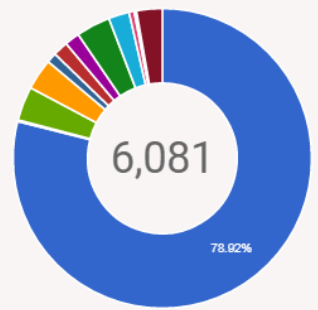
Reads vs RNA class



■ Unannotated ■ miRNAprimary ■ mir-3p ■ mir-5p ■ mir-5p3pno ■ piRNA ■ rRNA ■ snoRNA ■ tRF3 ■ tRF5 ■ tRNA ■ scRNA ■ snRNA





Show more

Peaks vs RNA class



Landing results → SPAR report page

Index of /~pkuksa/SPAR/SPAR_out/ca8ac37

| <u>Name</u> | <u>Last modified</u> | <u>Size</u> | <u>Description</u> |
|--|----------------------|-------------|--------------------|
|  Parent Directory | | - | |
|  DASHR_comparison/ | 26-Jan-2018 15:38 | - | |
|  ENCODE_comparison/ | 26-Jan-2018 15:39 | - | |
|  figures/ | 26-Jan-2018 15:39 | - | |
|  inputs/ | 26-Jan-2018 15:37 | - | |
|  logs/ | 26-Jan-2018 15:39 | - | |
|  results/ | 26-Jan-2018 15:39 | - | |
|  tracks/ | 26-Jan-2018 15:39 | - | |
|  report.html | 26-Jan-2018 15:39 | 40K | |
|  report.pdf | 26-Jan-2018 15:39 | 1.8M | |
|  results.html | 26-Jan-2018 15:39 | 2.4K | |
|  run_summary.html | 26-Jan-2018 15:39 | 584 | |
|  SPAR.hg38.config | 26-Jan-2018 15:37 | 2.0K | |

Report is available in html / pdf

SPAR report.pdf

A 15 page report containing tables and figures for download and sharing



Link to results: http://tesla.pcbi.upenn.edu/~pkuksa/SPAR/SPAR_out/ca8ac37 (will be kept for 2 weeks)

Link to results: [Download results \(ZIP\)](#) (will be kept for 2 weeks)

Run Summary

| | |
|---------------------------------|------------|
| Reads | 10,391,735 |
| Expressed small RNA loci | 6,081 |
| Reads (annotated) | 9,647,188 |
| Reads (unannotated) | 744,547 |
| Genes (annotated) | 1,214 |
| Called peaks (annotated) | 1,282 |
| Called peaks (unannotated) | 4,799 |
| Expressed loci length (average) | 18.90 |
| Genome coverage (nucleotides) | 114,957 |
| RPM (average) | 164.45 |



Landing results / outputs page (bottom)

After clicking show more at the bottom of the "Run Summary"

| | |
|---------------------------------|------------|
| Reads | 10,291,735 |
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Show less

Summary information on reads

Summary information on peaks

Step 1: Expand this to view the interactive peak browser

INTERACTIVE PEAK BROWSER +

VIEW IN GENOME BROWSER +

PLOTS +

DOWNLOAD RESULTS +

RUN LOG +

Interactive Peak Browser (Output)

The image shows a screenshot of a web interface for an Interactive Peak Browser. At the top, there is a dark red header bar with the text "INTERACTIVE PEAK BROWSER" on the left and a minus sign on the right. Below this header, the main content area is white and contains the text "Browse peaks (expressed small RNAs)". A yellow callout box with a black border and a yellow arrow pointing to the text contains the instruction "Click this to go to 'Interactive Peak Browser'". At the bottom of the interface, there are two more dark red header bars. The first one contains "VIEW IN GENOME BROWSER" on the left and a plus sign on the right. The second one contains "PLOTS" on the left and a plus sign on the right.

INTERACTIVE PEAK BROWSER -

Browse peaks (expressed small RNAs)

Click this to go to "Interactive Peak Browser"

VIEW IN GENOME BROWSER +

PLOTS +

Interactive Peak Browser (Output)

**Total number of called peaks
(annotated or unannotated)**

Click "pointing down error" to select other features to display

Browse peaks (expressed small RNA)

Download Table

Loci: 1-10 / 6081

Page 1 of 609

Results per page 10

| chr | peakID | Expression (raw) | strand | Same 5' end read % | Expression (RPM) | Expression (percentile) | Annotation | Annotated class | Conservatio | mRNA? | lncRNA? | repeat? |
|-------|--------|------------------|--------|--------------------|------------------|-------------------------|---|-----------------|-------------|------------|-------------|------------|
| Clear | | | Clear | | | | | Clear | | Clear | Clear | Clear |
| chr1 | P116 | 305.5 | + | 0.973813 | 29.3985 | 87.7 | chr1:109598939-109598961:+:hsa-miR-197-3p | mir-3p | 0.2112 | Intergenic | Non-lncRNA | Non-repeat |
| chr1 | P253 | 121.426 | - | 0.986206 | 11.6849 | 76.6 | chr1:10999855-10999945:-:HY1 | scRNA | 0.0197 | Intergenic | Non-lncRNA | Non-repeat |
| chr1 | P119 | 13.2556 | + | 0.933779 | 1.2756 | 12.33 | chr1:111446797-111446916:+:HY1 | scRNA | 8e-04 | Intergenic | Non-lncRNA | Non-repeat |
| chr1 | P121 | 333.222 | + | 0.926571 | 32.0662 | 88.88 | chr1:116671786-116671808:+:hsa-miR-320b | mir-5p3pno | 5e-04 | Intergenic | Non-lncRNA | Non-repeat |
| chr1 | P7 | 38 | + | 0.947368 | 3.6568 | 52.05 | chr1:1167159-1167181:+:hsa-miR-200b-3p | mir-3p | 0.9188 | Intergenic | lncRNA Exon | Non-repeat |
| chr1 | P8 | 15.0556 | + | 1 | 1.4488 | 18.01 | chr1:1169054-1169076:+:hsa-miR-429 | mir-5p3pno | 0.9834 | Intergenic | lncRNA Exon | Non-repeat |

Interactive Peak Browser (Output)

Filter snRNA loci with the top 5% of expression

INTERACTIVE PEAK BROWSER

Step 1: Type "95." in this text box and click enter

Number of loci that passed this criteria: 60

Browse peaks (expressed small RNAs)
Download Table

Loci: 1-10 / 60

| chr | peakID | Expression (raw) | strand | Same 5' end read % | Expression (RPM) | Expression (percentile) | Annotation | Annotated class | Conservatio | mRNA? | lncRNA? | repeat? |
|-------|--------|------------------|--------|--------------------|------------------|-------------------------|---|-----------------|-------------|---------------|---------------|------------|
| Clear | | | Clear | | | 95. | | Clear | | Clear | Clear | Clear |
| chr1 | P131 | 1358.61 | + | 0.587891 | 130.7399 | 95.13 | chr1:145157156-145157229:+:tRNA-Val-CAC-chr1-16 | tRNA | 0.3593 | Intergenic | Non-lncRNA | Non-repeat |
| chr1 | P150 | 1400.25 | + | 0.656677 | 134.747 | 95.21 | chr1:153671250-153671282:+:piR-35176 | piRNA | 0.8856 | Intergenic | Non-lncRNA | Non-repeat |
| chr1 | P109 | 1818.27 | - | 0.590711 | 174.9733 | 95.94 | chr1:156420353-156420375:-:hsa-miR-9-3p | mir-3p | 1 | 3' UTR Intron | lncRNA Intron | Non-repeat |
| chr1 | P104 | 1709.2 | - | 0.809757 | 164.4774 | 95.71 | chr1:159141610-159141684:-:tRNA-Arg-TCT-4-1 | tRNA | 1 | Intergenic | Non-lncRNA | Non-repeat |
| chr1 | P103 | 1303 | - | 0.590763 | 125.3885 | 95.02 | chr1:159141610-159141684:-:tRNA-Arg-TCT-4-1 | tRNA | 1 | Intergenic | Non-lncRNA | Non-repeat |
| chr1 | P218 | 1779.94 | + | 0.574177 | 171.2848 | 95.84 | chr1:204506526-204506599:+:tRNA-Lys-TTT-2-1 | tRNA | 0.8393 | Intergenic | lncRNA Exon | Non-repeat |

Interactive Peak Browser (Output)

Further filter sncRNA loci that only present in Promoter, 3' or 5' UTR exonic regions



Step 2: Select "Promoter", "3' UTR Exon", "5' UTR Exon"

Number of loci that fulfilled these criteria: 4

Browse peaks (expressed small RNAs)
Download Table

Loc: 1-4 / 4 Page 1 of 1 Results per page 10

| chr | peakID | Expression (raw) | strand | Same 5' end read % | Expression (RPM) | Expression (percentile) | Annotation | Annotated class | Conservation | mRNA? | lncRNA? | repeat? |
|-------|--------|------------------|--------|--------------------|------------------|-------------------------|---|-----------------|--------------|-------------|------------|------------|
| chr16 | P993 | 1512.66 | + | 0.965511 | 145.5642 | 95.44 | chr16:15643300-15643322:+:hsa-miR-484 | mir-5p3pno | 0.9999 | 5' UTR Exon | Non-lncRNA | Non-repeat |
| chr16 | P997 | 1355.09 | + | 0.466894 | 130.4012 | 95.12 | chr16:19498609-19498750:+:U4 | snRNA | 0.0546 | 3' UTR Exon | Non-lncRNA | Non-repeat |
| chr16 | P1032 | 173.59 | - | 0.358646 | 167.1132 | 95.76 | chr16:636735-636806:-:tRNA-Gly-CCC-2-2 | tRNA | 0.9205 | Promoter | Non-lncRNA | Non-repeat |
| chr2 | P479 | 1745.09 | - | 0.358646 | 167.9311 | 95.77 | chr2:70248990-70249061:-:tRNA-Gly-CCC-2-1 | tRNA | 0.8976 | Promoter | Non-lncRNA | Non-repeat |

Step 3: Export these 4 filtered sncRNAs

Optional: click this link to visualize this peak P993 in UCSC genome browser

Interactive Peak Browser (Output)

Hg38 reference genome

Peak coordinates and length

SPAR Peak profile on positive strand

Tissue: frontal cortex

Peak expression value

Annotation: mir484

Configuration for SPAR tracks

Tools Mirrors Downloads My Data View Help About Us

UCSC Genome Browser on Human Dec. 2013 (GRCh38/hg38) Assembly

move <<< << < > >> >>> zoom in 1.5x 3x 10x base zoom out 1.5x 3x 10x 100x

chr16:15,643,301-15,643,322 22 bp. enter position, gene symbol, HGVS or search terms go [Request onsite workshops](#)

chr16 (p13.11) 15613.3 15612.3 15611.2 15611.2 15611.2 15612.3 15612.3 15621 15621 15621 1563.1

chr16:15,643,301-15,643,322 hg38
 1513.66 T C C A G C T C C A G C T C C C 15,643,315 T C C C 15,643,320 A T
 SPAR Raw Signal frontal-cortex-rep1_ENCSR000AFS_pos.bigWig (PLUS strand)

frontal-cortex-rep1_ENCSR000AFS_pos.bigWig (PLUS strand)

954.833 No data SPAR Raw Signal frontal-cortex-rep1_ENCSR000AFS_pos.bigWig (MINUS strand)

frontal-cortex-rep1_ENCSR000AFS_pos.bigWig (MINUS strand)

No data

GENCODE v24 Comprehensive Transcript Set (only Basic displayed by default)

NCBI
 HIR484

RefSeq Curated RefSeq gene predictions from NCBI

OMIM Alleles OMIM Allelic Variants

Transcription Transcription Levels Assayed by RNA-seq on 9 Cell Lines from ENCODE

Multiz Align Vertebrate Multiz Alignment & Conservation (100 Species)

Common SNPs (158) Simple Nucleotide Polymorphisms (dbSNP 158) Found in >= 12 of Samples

move start < 2.0 > move end < 2.0 >

Click on a feature for details. Click or drag in the base position track to zoom in. Click side bars for track options. Drag side bars or labels up or down to reorder tracks. Drag tracks left or right to new position. Press "?" for keyboard shortcuts.

track search default tracks default order hide all manage custom tracks track hubs configure multi-region reverse resize refresh

collapse all Use drop-down controls below and press refresh to alter tracks displayed. expand all

Tracks with lots of items will automatically be displayed in more compact modes.

Custom Tracks refresh

frontal-cortex-rep1_ENCSR000AFS_pos.bigWig + frontal-cortex-rep1_ENCSR000AFS_pos.bigWig - RAW RAW

Finish exploring Interactive Peak Browser, next view peaks in genome browser

INTERACTIVE PEAK BROWSER -

Step 1: click this to minimize this section

Browse peaks (expressed small RNAs)

Download Table

Loci: 1-4 / 4 Page 1 of 1 Results per page 10

| chr | peakID | Expression (raw) | strand | Same 5' end read % | Expression (RPM) | Expression (percentile) | Annotation | Annotated class | Conservation | mRNA? | lncRNA? | repeat? |
|-------|--------|------------------|--------|--------------------|------------------|-------------------------|---|-----------------|--------------|-------------------------------|---------------------------------|---------------------------------|
| Clear | | | Clear | | | 95. | | Clear | | <input type="checkbox"/> mRNA | <input type="checkbox"/> lncRNA | <input type="checkbox"/> repeat |
| chr16 | P993 | 1512.66 | + | 0.965511 | 145.5642 | 95.44 | chr16:15643300-15643322:+:hsa-miR-484 | mir-5p3pno | 0.9999 | 5' UTR Exon | Non-lncRNA | Non-repeat |
| chr16 | P997 | 1355.09 | + | 0.466894 | 130.4012 | 95.12 | chr16:19498609-19498750:+:U4 | snRNA | 0.0546 | 3' UTR Exon | Non-lncRNA | Non-repeat |
| chr16 | P1032 | 1736.59 | - | 0.358646 | 167.1132 | 95.76 | chr16:636735-636806:-:tRNA-Gly-CCC-2-2 | tRNA | 0.9205 | Promoter | Non-lncRNA | Non-repeat |
| chr2 | P1479 | 1745.09 | - | 0.356899 | 167.9311 | 95.77 | chr2:70248990-70249061:-:tRNA-Gly-CCC-2-1 | tRNA | 0.8976 | Promoter | Non-lncRNA | Non-repeat |

VIEW IN GENOME BROWSER +

Step 2: click this to maximize this section

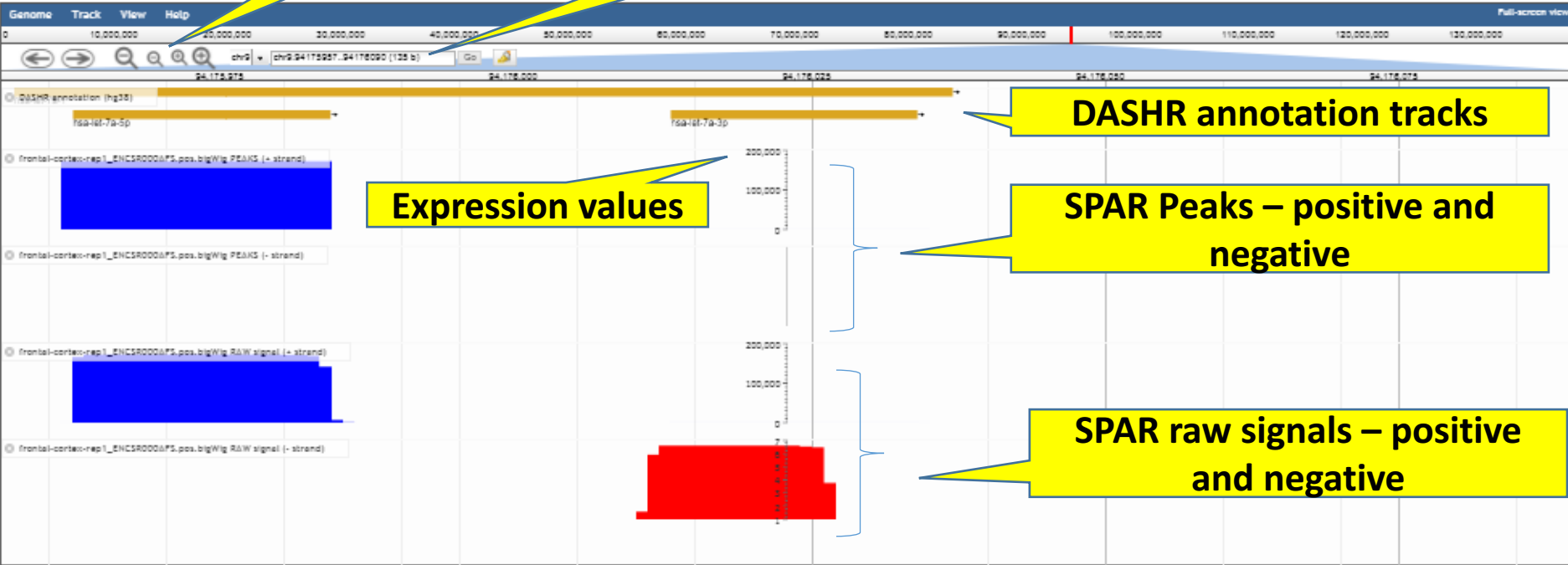
View in Genome Browser (Output)

Optional: "View SPAR result tracks in UCSC Genome Browser (opens in the new window)" if preferred

Type in genomic coordinates / RNA / gene symbols of interest

VIEW IN GENOME BROWSER **Zoom in or out**

View SPAR result tracks in UCSC Genome Browser (opens in the new window)



DASHR annotation tracks

Expression values

SPAR Peaks – positive and negative

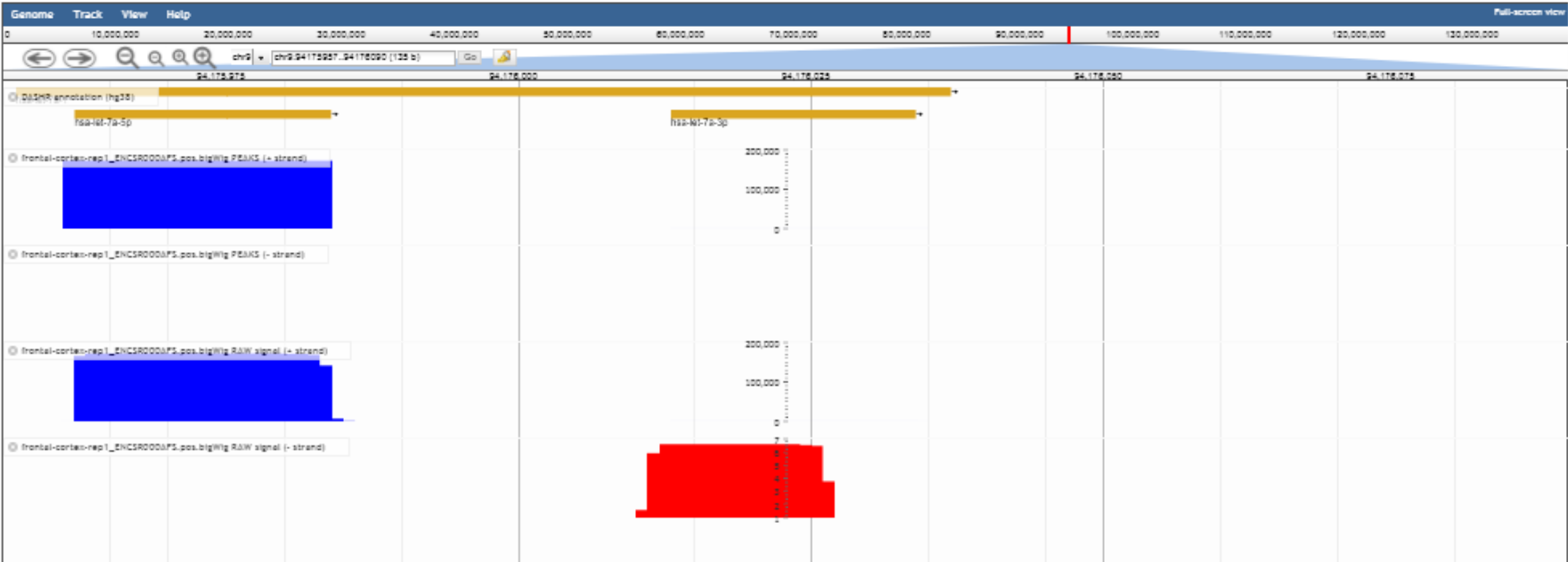
SPAR raw signals – positive and negative

Finish exploring Genome browser, quickly understand the data in a genomewide view

Step 1: click this to minimize this section



View SPAR result tracks in UCSC Genome Browser (opens in the new window)



Step 2: click this to maximize this section

Plots (Output) – to navigate across all plots

PLOTS

4 different plot sessions

SEGMENTATION

- Length distribution of rpm of segmented loci
- Genomic length distribution of identified small rna loci

LENGTHEXPRESSION

- Rpm distribution of identified small rna loci
- Percentile distribution of identified small rna loci across different lengths

PROCESSING

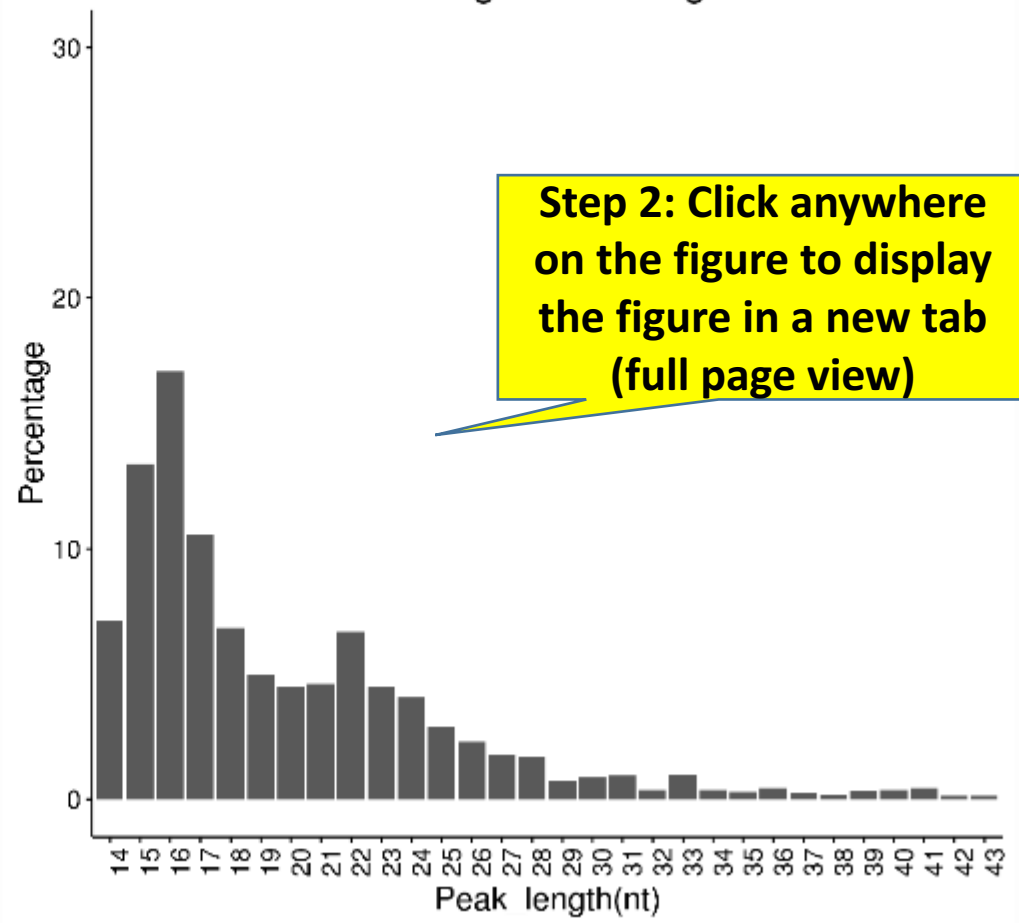
- 5p end positional offset between identified loci and small rna gene
- Processing specificity at 5p end of identified small rna loci
- Read pipeup at 5p end of identified small rna loci

GENOMEWIDE

- Proportion of expressed annotated small rna genes
- Genomewide distribution patterns of small rna loci
- Genomewide distribution of expressed small rna loci
- Proportion of mapped reads across all loci

Step 1: Click to display, corresponding plot will be shown in the right

Distribution of loci RPM at different lengths after segmentation



Step 2: Click anywhere on the figure to display the figure in a new tab (full page view)

Plots (Output) – 1

PLOTS

4 different plot sessions

SEGMENTATION

Length distribution of rpm of segmented loci
Genomic length distribution of identified small rna loci

LENGTHEXPRESSION

Rpm distribution of identified small rna loci
Percentile distribution of identified small rna loci across different lengths

PROCESSING

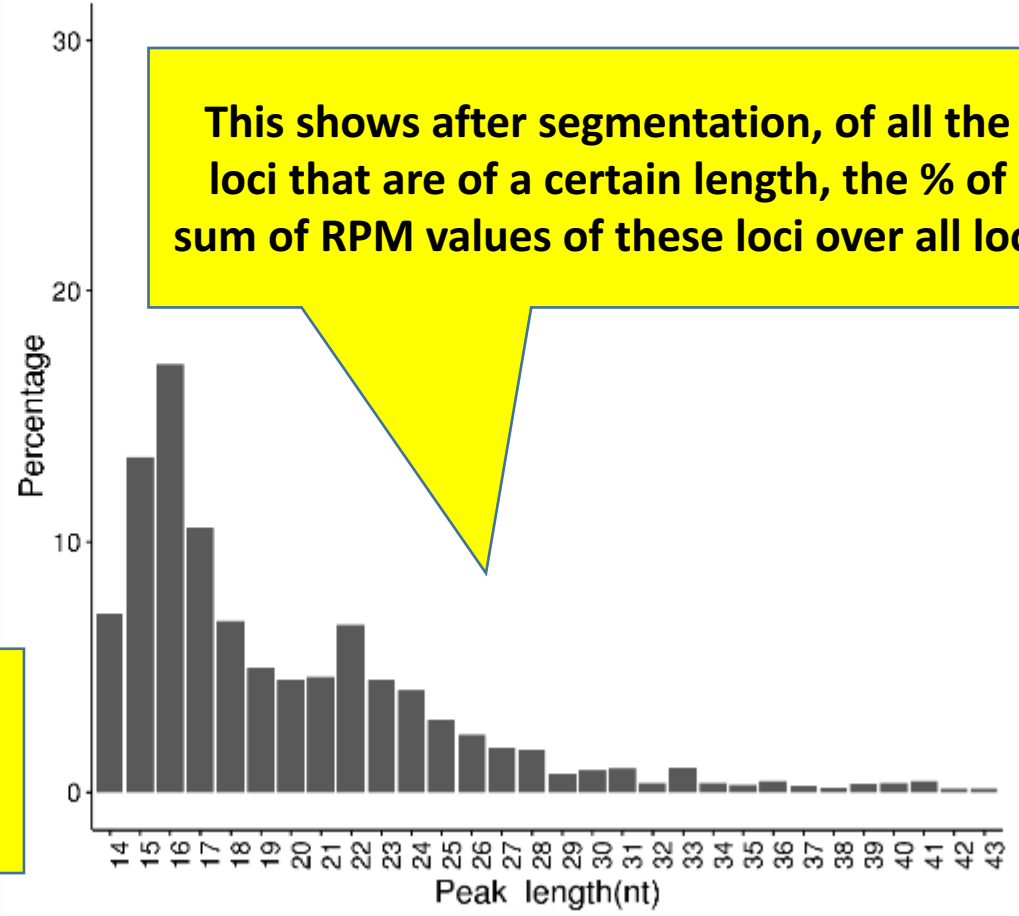
5p end positional offset between identified loci and small rna gene
Processing specificity at 5p end of identified small rna loci
Read pipeup at 5p end of identified small rna loci

GENOMEWIDE

Proportion of expressed annotated small rna genes
Genomewide distribution patterns of small rna loci
Genomewide distribution of expressed small rna loci
Proportion of mapped reads across all loci

Click to display, corresponding plot will be shown in the right

Distribution of loci RPM at different lengths after segmentation



Length distribution of rpm of segmented loci

Plots (Output) - 2

PLOTS

SEGMENTATION

Length distribution of rpm of segmented loci

Genomic length distribution of identified small rna loci

LENGTHEXPRESSION

Rpm distribution of identified small rna loci

Percentile distribution of identified small rna loci across different lengths

PROCESSING

5p end positional offset between identified loci and small rna gene

Processing specificity at 5p end of identified small rna loci

Read pipeup at 5p end of identified small rna loci

GENOMEWIDE

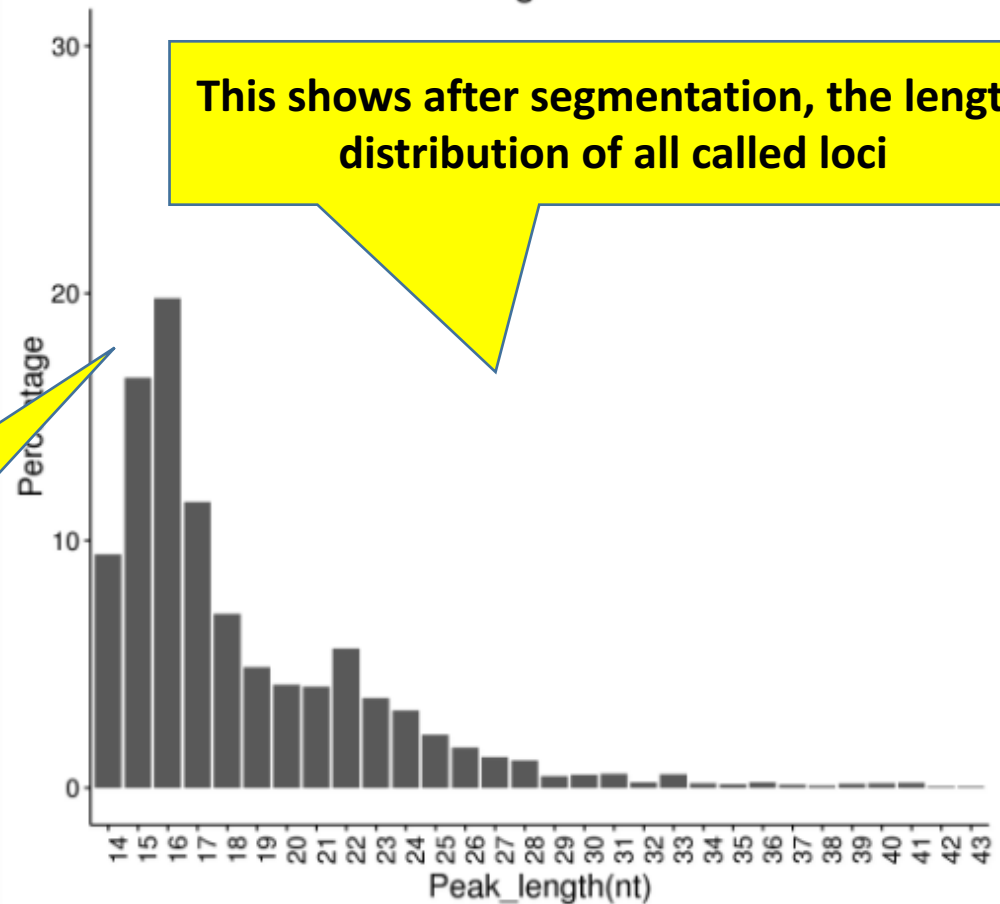
Proportion of expressed annotated small rna genes

Genomewide distribution patterns of small rna loci

Genomewide distribution of expressed small rna loci

Proportion of mapped reads across all loci

Length distribution of all loci after segmentation



This shows after segmentation, the length distribution of all called loci

This shows most of the peaks are between 15-17 nt long

Plots (Output) - 3

PLOTS

SEGMENTATION

- Length distribution of rpm of segmented loci
- Genomic length distribution of identified small rna loci

LENGTHEXPRESSION

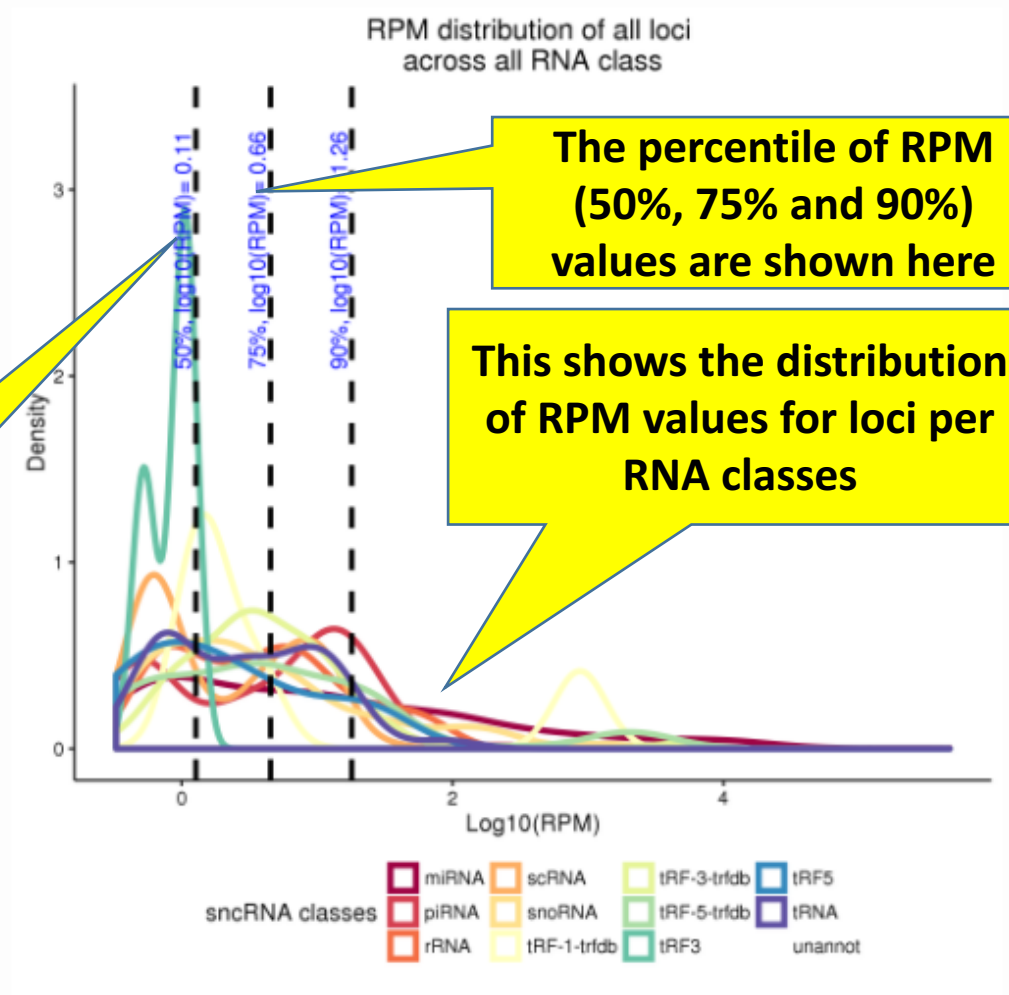
- Rpm distribution of identified small rna loci
- Percentile distribution of identified small rna loci across different lengths

PROCESSING

- 5p end positional offset between identified loci and small rna gene
- Processing specificity at 5p end of identified small rna loci
- Read pipeup at 5p end of identified small rna loci

GENOMEWIDE

- Proportion of expressed annotated small rna genes
- Genomewide distribution patterns of small rna loci
- Genomewide distribution of expressed small rna loci
- Proportion of mapped reads across all loci



This shows tRF3 are lowly expressed, compared to other classes

Rpm distribution of identified small rna loci

Plots (Output) – 4

PLOTS

SEGMENTATION

- Length distribution of rpm of segmented loci
- Genomic length distribution of identified small rna loci

LENGTHEXPRESSION

- Rpm distribution of identified small rna loci
- Percentile distribution of identified small rna loci across different lengths

PROCESSING

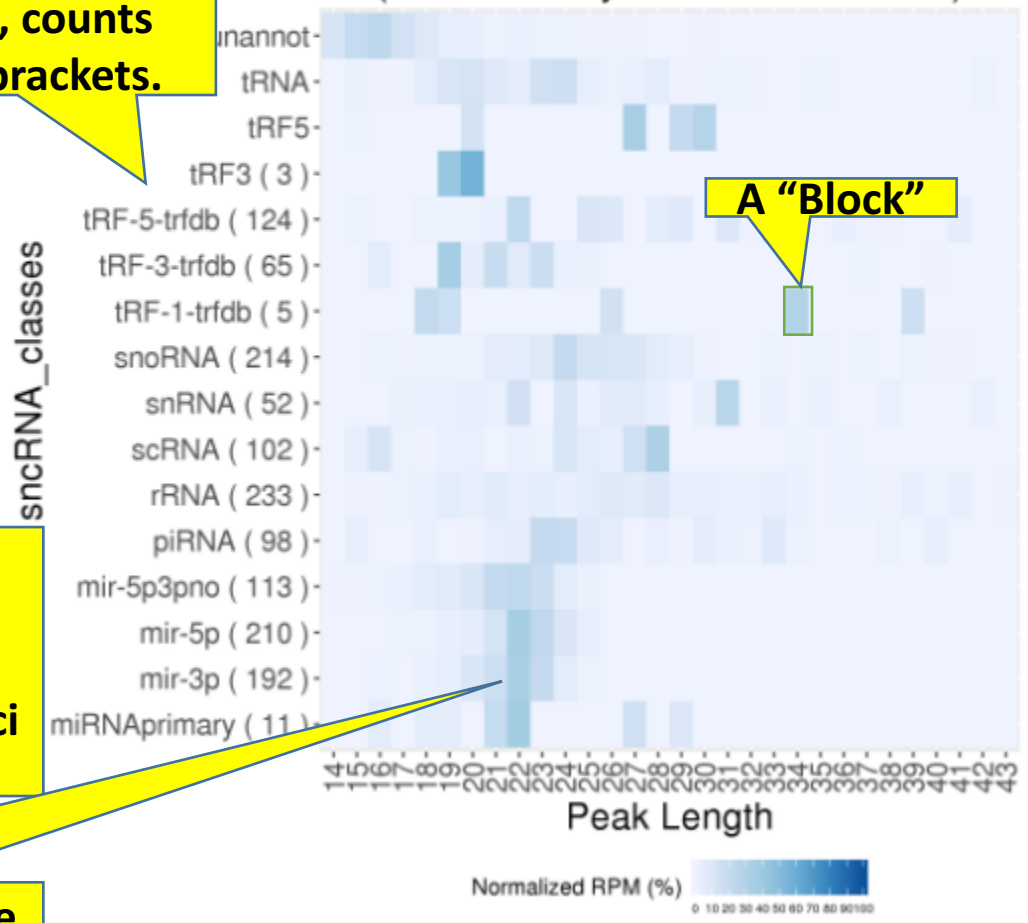
- 5p end positional offset between identified loci and small rna gene
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GENOMEWIDE

- Proportion of expressed annotated small rna genes
- Genomewide distribution patterns of small rna loci
- Genomewide distribution of expressed small rna loci
- Proportion of mapped reads across all loci

All loci are grouped by classes, counts shown in brackets.

Percentile distribution of all loci (normalized by each snRNA class)



For loci in each class, we divided them into groups of specific length (x axis). Each small "block" in this heatmap shows the normalized RPM values of loci of specific length for each RNA class.

This shows there are 192 mir-3p loci, the 22nt ones are the most highly expressed.

Plots (Output) - 6

PLOTS

SEGMENTATION

Length distribution of rpm of segmented loci
Genomic length distribution of identified small rna loci

LENGTHEXPRESSION

Rpm distribution of identified small rna loci
Percentile distribution of identified small rna loci across different lengths

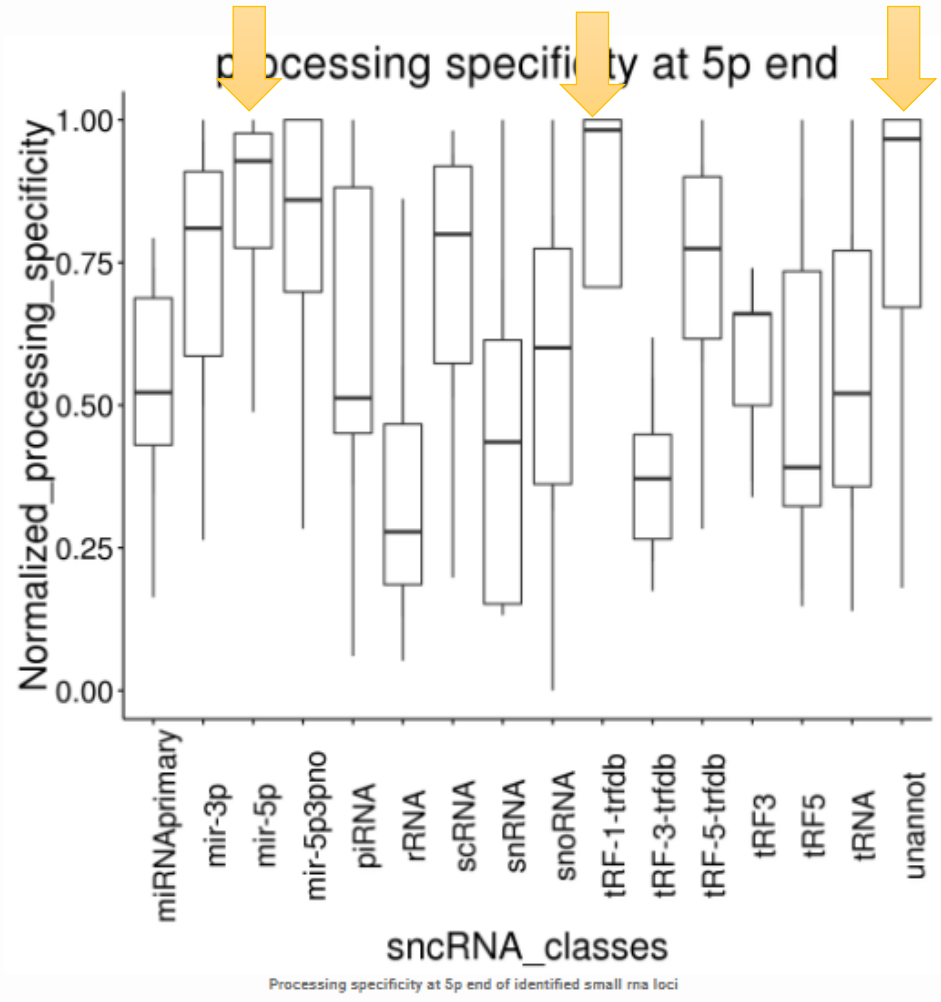
PROCESSING

5p end positional offset between identified loci and small rna gene
Processing specificity at 5p end of identified small rna loci
Read pipeup at 5p end of identified small rna loci

GENOMEWIDE

Proportion of expressed annotated small rna genes
Genomewide distribution patterns of small rna loci
Genomewide distribution of expressed small rna loci
Proportion of mapped reads across all loci

The plot shows the distribution of % of reads that are with the same 5' end. The higher the values, meaning that most reads have the same 5' end, e.g. mir-5p, tRF-1-trfdb, unannot in this figure



Plots (Output) - 7

PLOTS

SEGMENTATION

Length distribution of rpm of segmented loci
 Genomic length distribution of identified small rna loci

LENGTHEXPRESSION

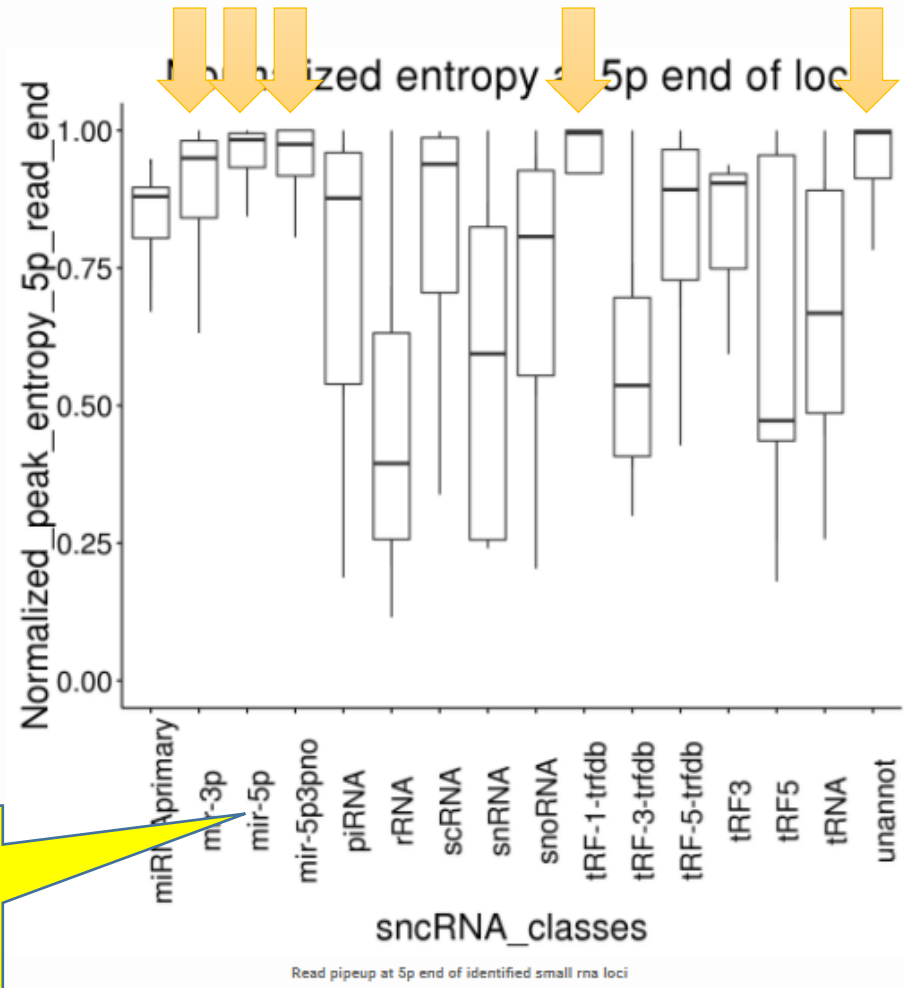
Rpm distribution of identified small rna loci
 Percentile distribution of identified small rna loci across different lengths

PROCESSING

5p end positional offset between identified loci and small rna gene
 Processing specificity at 5p end of identified small rna loci
Read pipeup at 5p end of identified small rna loci

GENOMEWIDE

Proportion of expressed annotated small rna genes
 Genomewide distribution patterns of small rna loci
 Genomewide distribution of expressed small rna loci
 Proportion of mapped reads across all loci



The closer the values to 1, the more specific the processing patterns are, e.g. mir-3p, mir-5p, mir-5p3pno, tRF-1-trfdb, unanno

This shows the distribution of the score "processing specificity at the 5' end" across loci for each sncRNA classes

Plots (Output) - 8

PLOTS

SEGMENTATION

Length distribution of rpm of segmented loci
Genomic length distribution of identified small rna loci

LENGTHEXPRESSION

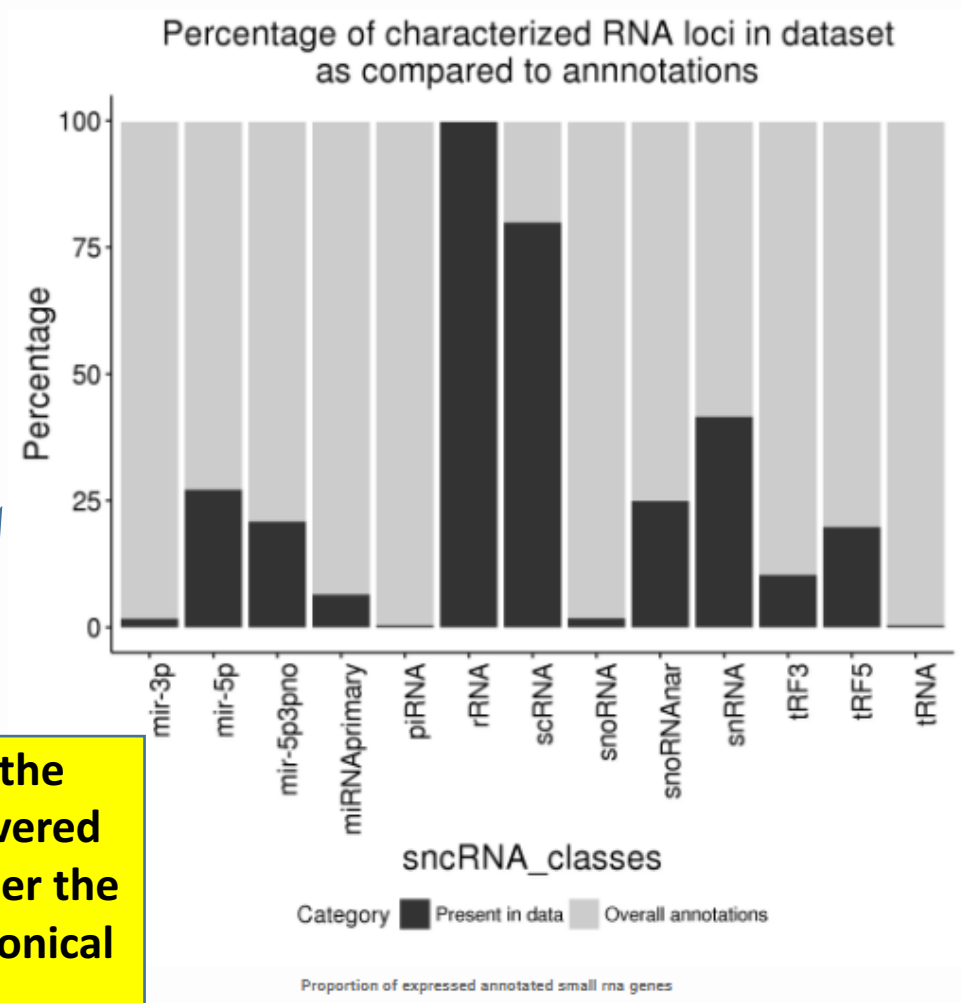
Rpm distribution of identified small rna loci
Percentile distribution of identified small rna loci across different lengths

PROCESSING

5p end positional offset between identified loci and small rna gene
Processing specificity at 5p end of identified small rna loci
Read pipeup at 5p end of identified small rna loci

GENOMEWIDE

Proportion of expressed annotated small rna genes
Genomewide distribution patterns of small rna loci
Genomewide distribution of expressed small rna loci
Proportion of mapped reads across all loci



The plot compares per sncRNA class, the count of RNA loci characterized / discovered to that of the full annotations. The higher the percentage, meaning that the more canonical loci are present in the data.

Plots (Output) - 9

SEGMENTATION

- Length distribution of rpm of segmented loci
- Genomic length distribution of identified small rna loci

LENGTHEXPRESSION

- Rpm distribution of identified small rna loci
- Percentile distribution of identified small rna loci across different lengths

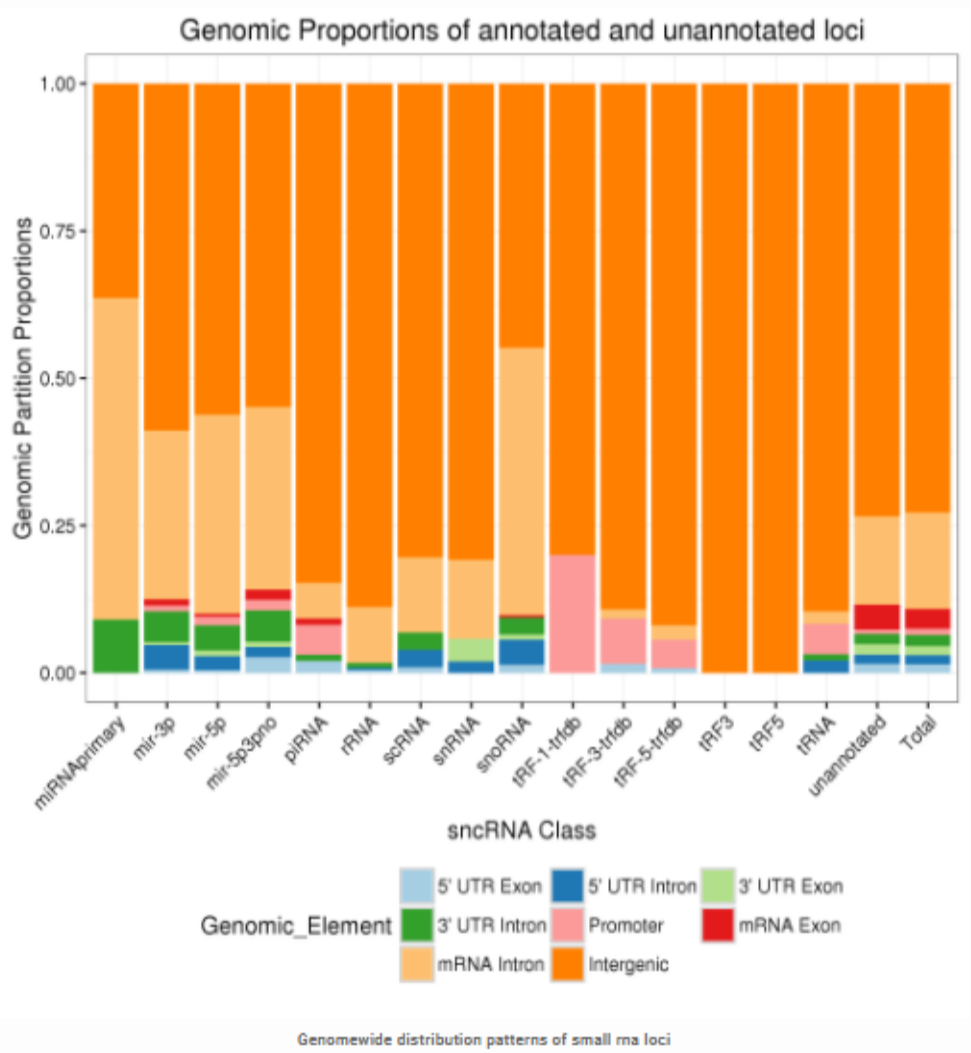
PROCESSING

- 5p end positional offset between identified loci and small rna gene
- Processing specificity at 5p end of identified small rna loci
- Read pipeup at 5p end of identified small rna loci

GENOMEWIDE

- Proportion of expressed annotated small rna genes
- Genomewide distribution patterns of small rna loci
- Genomewide distribution of expressed small rna loci
- Proportion of mapped reads across all loci

This plot shows per sncRNA class, which genomic elements they reside in. Take mir-3p as an example, most mir-3p resides in intergenic region, followed by mRNA introns, 3'UTR introns and 5' introns regions (i.e. intronic regions). A tiny amount falls into mRNA exon regions.



Genomewide distribution patterns of small rna loci

Plots (Output) - 10

PLOTS

SEGMENTATION

Length distribution of rpm of segmented loci
 Genomic length distribution of identified small rna loci

LENGTHEXPRESSION

Rpm distribution of identified small rna loci
 Percentile distribution of identified small rna loci across different lengths

PROCESSING

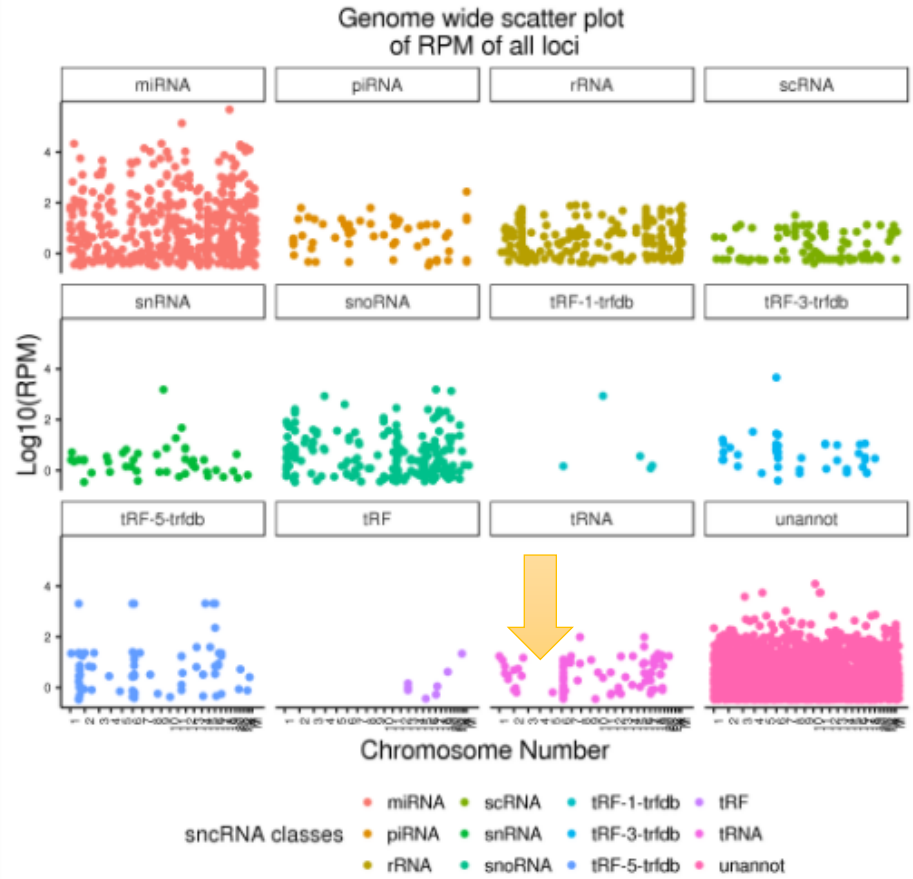
5p end positional offset between identified loci and small rna gene
 Processing specificity at 5p end of identified small rna loci
 Read pipeup at 5p end of identified small rna loci

GENOMEWIDE

Proportion of expressed annotated small rna genes
 Genomewide distribution patterns of small rna loci
Genomewide distribution of expressed small rna loci
 Proportion of mapped reads across all loci



This plot shows the genomewide expression values (RPM) across all the chromosomes. E.g. there are no characterized tRNAs from chr3 and chr4 for this data



Genomewide distribution of expressed small rna loci

Plots (Output) - 11

PLOTS

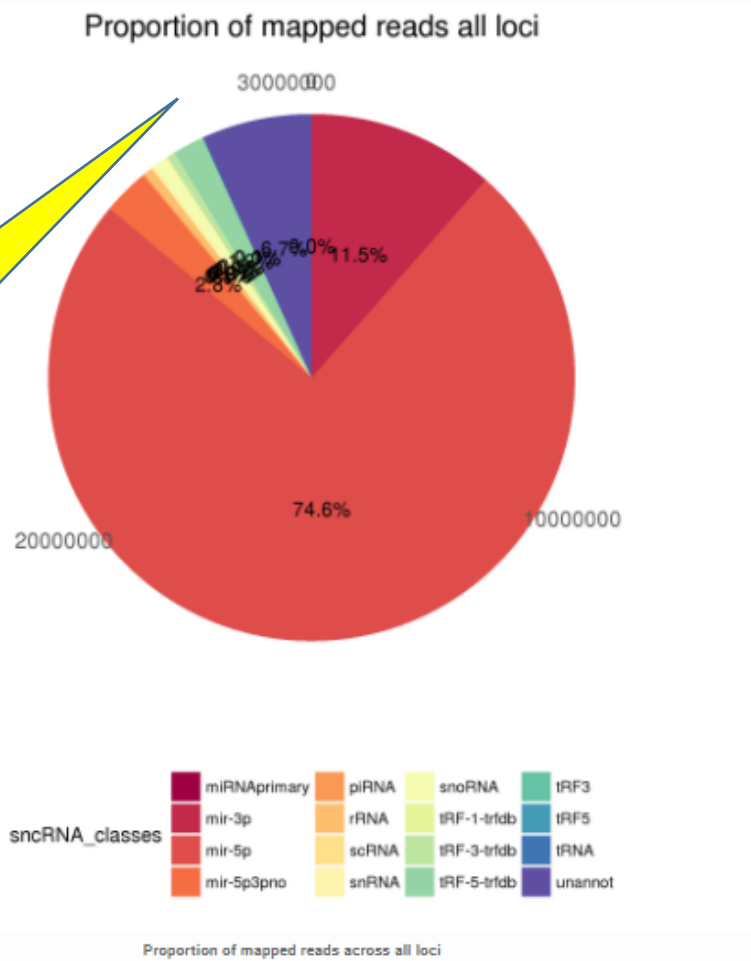
SEGMENTATION
 Length distribution of rpm of segmented loci
 Genomic length distribution of identified small rna loci

LENGTHEXPRESSION
 Rpm distribution of identified small rna loci
 Percentile distribution of identified small rna loci across different lengths

PROCESSING
 5p end positional offset between identified loci and small rna gene
 Processing specificity at 5p end of identified small rna loci
 Read pipeup at 5p end of identified small rna loci

GENOMEWIDE
 Proportion of expressed annotated small rna genes
 Genomewide distribution patterns of small rna loci
 Genomewide distribution of expressed small rna loci
 Proportion of mapped reads across all loci

This plot shows the percentage of mapped reads per loci per RNA class. E.g. most to the reads fall into miRNA classes, followed by unannotated loci



Finish viewing the plots, want to perform own analyses with SPAR results – visit download

PLOTS

SEGMENTATION
Length distribution of rpm of segmented loci
Genomic length distribution of identified small rna loci

LENGTHEXPRESSION
Rpm distribution of identified small rna loci
Percentile distribution of identified small rna loci across different lengths

PROCESSING
5p end positional offset between identified loci and small rna gene
Processing specificity at 5p end of identified small rna loci
Read pipeline at 5p end of identified small rna loci

GENOMEWIDE
Proportion of expressed annotated small rna genes
Genome-wide distribution patterns of small rna loci
Genome-wide distribution of expressed small rna loci
Proportion of mapped reads across all loci

Proportion of

| sncRNA_class | Proportion |
|--------------|------------|
| mir-5p | 74.6% |
| mir-3p | 11.5% |
| mir-5p3pno | 2.8% |
| unannot | 6.7% |
| trf-1-trfdb | 0.0% |
| trf-3-trfdb | 0.0% |
| trf-5-trfdb | 0.0% |
| piRNA | 0.0% |
| rRNA | 0.0% |
| scRNA | 0.0% |
| snRNA | 0.0% |
| snoRNA | 0.0% |
| trf3 | 0.0% |
| trf5 | 0.0% |
| trna | 0.0% |

Step 1: click this to minimize this section

Step 2: click this to maximize this section

DOWNLOAD RESULTS

Download results (Top) – sncRNA gene expression

DOWNLOAD RESULTS

Tracks for browsing

| Content | Description | Download |
|------------------------|--|--|
| Peak tracks | Genome-wide tracks | <ul style="list-style-type: none"> • plus • minus |
| Raw signal tracks | Genome-wide tracks | <ul style="list-style-type: none"> • plus • minus |
| Peak tables | Tables with detailed information: <ol style="list-style-type: none"> 1. Annotated peaks: peaks overlapping sncRNA genes or mature products with annotations. 2. Unannotated peaks: peaks that do not overlap with annotated sncRNA genes or mature products. | <ul style="list-style-type: none"> • Anno • Unanno • All called peaks [bed] |
| Gene expression | Small RNA gene expression | <ul style="list-style-type: none"> • Gene expression table (xls) [3.31 MB] |
| Comparison with DASHR | Integrated expression tables | <ul style="list-style-type: none"> • Annotated peaks [xls] • Unannotated peaks [xls] • All (Annotated + Unannotated) peaks [xls] [bed] • Peaks not in DASHR [xls] |
| Comparison with ENCODE | Integrated expression tables | <ul style="list-style-type: none"> • Annotated peaks [xls] • Unannotated peaks [xls] • All (Annotated + Unannotated) peaks [xls] [bed] • Peaks not in ENCODE [xls] |

Step 1: Click to download sncRNA gene expression data (instead of individual loci' RPM will be shown)

Download results (Output)- sncRNA gene expression

Under “Gene Expression” section “smRNA_gene_expression.xls”:

This table displays the read counts, as well as RPM expression values for the sncRNA genes identified

| #Gene | sncRNA gene name | B | C | D |
|--|------------------|-------------|---------|---------|
| | | GeneClass | ReadCou | RPM |
| chr6:151619978:151620068:-:HY4 | | scRNA | 66.7142 | 31.3062 |
| chr3:48238061:48238078:+:hsa-miR-4443 | | mir-5p3pno | 105 | 49.2722 |
| chr6_ssto_hap7:3077413:3077494:-:HY3 | | scRNA | 129.147 | 60.6034 |
| chr1:17067010:17067174:+:U1 | | snRNA | 37.2714 | 17.4899 |
| chr6_cox_hap2:97136:97167:+:DQ598188:piR-36254 | | piRNA | 174.713 | 81.9856 |
| chrX:118780761:118780783:-:hsa-miR-766-5p | | mir-5p | 174.417 | 81.8467 |
| chr10:38283790:38283901:+:HY1 | | scRNA | 14.5489 | 6.8272 |
| chr17:80626156:80626177:-:hsa-miR-4525 | | mir-5p3pno | 60 | 28.1555 |
| chr6:27248048:27248121:-:tRNA-Val-CAC-2-1 | | tRNA | 41.799 | 19.6146 |
| chr3:125235822:125235927:+:HY1 | | scRNA | 30.4169 | 14.2734 |
| chr10:103124606:103124792:-:U2 | | snRNA | 99.2588 | 46.5781 |
| chr10:69524340:69524360:+:trfdb-1001_chr10.trna2-SerTGA_chr10-69524261-69524342 | | tRF-1-trfdb | 18088.8 | 8488.33 |
| chr13:92003498:92003521:+:hsa-miR-19b-3p | | mir-3p | 22.5 | 10.5583 |
| chr1:161493633:161493655:-:trfdb-3027b_chr1.trna68-GlyGCC_chr1-161493707-161493637 | | tRF-3-trfdb | 16.2765 | 7.63789 |
| chr16:3357711:3357744:-:DQ571003:piR-31115 | | piRNA | 84.5773 | 39.6886 |
| chr19:24182635:24183468:-:LSU-rRNA_Hsa | | rRNA | 341.065 | 160.048 |
| chr6:86387011:86387086:-:U50 | | snoRNA | 13.2333 | 6.20984 |
| chr12:109029624:109029646:+:hsa-miR-4496 | | mir-5p3pno | 63.4083 | 29.7549 |
| chr7:128423560:128423578:+:trfdb-3002a_chr7.trna2-ProAGG_chr7-128423504-128423575 | | tRF-3-trfdb | 47.6833 | 22.3758 |
| chr11:79113120:79113143:-:hsa-miR-708-5p | | mir-5p | 11.3588 | 5.33022 |
| chr16:22207031:22207113:-:tRNA-Leu-TAG-3-1 | | tRNA | 77.7613 | 36.4902 |

Download results (Top) – comparison expression results with DASHR/ENCODE (1)

DOWNLOAD RESULTS

| Content | Description | Download |
|------------------------|--|--|
| Peak tracks | Genome-wide tracks | <ul style="list-style-type: none"> • plus • minus |
| Raw signal tracks | Genome-wide tracks | <ul style="list-style-type: none"> • plus • minus |
| Peak tables | Tables with detailed information 1. Annotated peaks: peaks overlapping with annotated genes or mature products 2. Unannotated peaks: peaks that do not overlap with annotated sncRNA genes or mature products. | <ul style="list-style-type: none"> • Annotated peaks [xls] • Unannotated peaks [xls] • All called peaks [xls] [bed] |
| Gene expression | Small RNA gene expression | <ul style="list-style-type: none"> • Gene expression table (xls) [3.31 M] |
| Comparison with DASHR | Integrated expression tables | <ul style="list-style-type: none"> • Annotated peaks [xls] • Unannotated peaks [xls] • All (Annotated + Unannotated) peaks [xls] [bed] • Peaks not in DASHR [xls] |
| Comparison with ENCODE | Integrated expression tables | <ul style="list-style-type: none"> • Annotated peaks [xls] • Unannotated peaks [xls] • All (Annotated + Unannotated) peaks [xls] [bed] • Peaks not in ENCODE [xls] |

Comparison expression tables

Step 2: Click to download peaks present in both the analysed data and also expressed in DASHR

Download results (Top) – comparison expression results with DASHR/ENCODE (2)

DOWNLOAD RESULTS

| Content | Description | Download |
|------------------------|---|--|
| Peak tracks | Genome-wide tracks | <ul style="list-style-type: none"> plus strand [bigBED] [382.36 KB] minus strand [bigBED] [384.94 KB] |
| Raw signal tracks | Genome-wide tracks | <ul style="list-style-type: none"> plus strand [bigWig] [5.06 MB] minus strand [bigWig] [3.60 MB] |
| Peak tables | Tables with detailed information 1. Annotated peaks: peaks overlapping with mature products 2. Unannotated peaks: peaks that do not overlap with annotated sncRNA genes or mature products. | <ul style="list-style-type: none"> Annotated peaks [xls] Unannotated peaks [xls] All called peaks [xls] [bed] |
| Gene expression | Small RNA gene expression | <ul style="list-style-type: none"> Gene expression table (xls) [3.31 MB] |
| Comparison with DASHR | Integrated expression tables | <ul style="list-style-type: none"> Annotated peaks [xls] Unannotated peaks [xls] All (Annotated + Unannotated) peaks [xls] [bed] Peaks not in DASHR [xls] |
| Comparison with ENCODE | Integrated expression tables | <ul style="list-style-type: none"> Annotated peaks [xls] Unannotated peaks [xls] All (Annotated + Unannotated) peaks [xls] [bed] Peaks not in ENCODE [xls] |

Comparison expression tables

Step 3: Click to download peaks only in analysed data but not in DASHR

Download results – comparison expression tables (using DASHR as example)

Under “Comparison with DASHR”, download “not_in_DASHR.xls”

Called peak annotation and features

Comparison columns with all DASHR tissues (a total of 54 columns)

| # | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | AA | AB | AC | AD | AE | AF | AG |
|----|---------|---------|---------|--------|---------|---------|---------|---------|--------|---------|---------|--------|---------|---------|--------|--------|---------|---------|--------|---------|---------|---------|---------|--------------------|-----------|---------|---------|--------|-----|----------|--------|---------|-------|
| 1 | peakChr | peakChr | peakChr | peakID | peakExp | peakStr | peakEnt | peakNoi | peakMa | peakEnt | peakNoi | peakMa | peakPrc | peakPrc | peakMo | peakMo | beforeP | peakFol | peakRP | peakExp | annotCh | annotCh | annotCh | annotID | annotRP | annotSt | annotDu | pe | chr | chrStart | chrEnd | anchorI | score |
| 2 | chr1 | 566417 | 566441 | P311 | 521.34 | - | 0.9157 | 0.2289 | 4 | 0.2568 | 0.0993 | 2.585 | 0.8769 | 0.9693 | 1 | 24 | 1.3333 | 343.88 | 17.144 | 89.7 | chr1 | 566375 | 566441 | chr1:566375-566441 | tRNA | - | 0.3636 | 1 | 1 | -1 | -1 | -1 | |
| 3 | chr1 | 2E+07 | 2E+07 | P291 | 79.468 | - | 3.4691 | 0.8487 | 4.0875 | 2.7526 | 0.723 | 3.8074 | 0.242 | 0.3434 | 1 | 24 | 4.5342 | 5.2537 | 2.6132 | 65.97 | chr1 | 2E+07 | 2E+07 | chr1:1684 | snRNA | - | 0.189 | 1 | -1 | -1 | -1 | | |
| 4 | chr1 | 2E+07 | 2E+07 | P290 | 673.2 | - | 0.2093 | 0.055 | 3.8074 | 2.5984 | 0.7511 | 3.4594 | 0.9778 | 0.382 | 1 | 17 | 1.2786 | 515.86 | 22.137 | 91.19 | chr1 | 2E+07 | 2E+07 | chr1:1687 | tRF-5-tri | - | 0.88 | 1 | -1 | -1 | -1 | | |
| 5 | chr1 | 2E+07 | 2E+07 | P289 | 79.468 | - | 3.4691 | 0.8487 | 4.0875 | 2.7526 | 0.723 | 3.8074 | 0.242 | 0.3434 | 1 | 24 | 4.5342 | 5.2537 | 2.6132 | 65.99 | chr1 | 2E+07 | 2E+07 | chr1:1693 | snRNA | - | 0.189 | 1 | -1 | -1 | -1 | | |
| 6 | chr1 | 2E+07 | 2E+07 | P36 | 79.468 | + | 3.4691 | 0.8487 | 4.0875 | 2.7526 | 0.723 | 3.8074 | 0.242 | 0.3434 | 1 | 24 | 4.5342 | 5.2537 | 2.6132 | 66 | chr1 | 2E+07 | 2E+07 | chr1:1706 | snRNA | + | 0.189 | 1 | -1 | -1 | -1 | | |
| 7 | chr1 | 2E+07 | 2E+07 | P37 | 673.2 | + | 0.2093 | 0.055 | 3.8074 | 2.5984 | 0.7511 | 3.4594 | 0.9778 | 0.382 | 1 | 17 | 1.2786 | 515.86 | 22.137 | 91.2 | chr1 | 2E+07 | 2E+07 | chr1:1718 | tRF-5-tri | + | 0.88 | 1 | -1 | -1 | -1 | | |
| 8 | chr1 | 2E+07 | 2E+07 | P38 | 79.468 | + | 3.4691 | 0.8487 | 4.0875 | 2.7526 | 0.723 | 3.8074 | 0.242 | 0.3434 | 1 | 24 | 4.5342 | 5.2537 | 2.6132 | 66.02 | chr1 | 2E+07 | 2E+07 | chr1:1722 | snRNA | + | 0.189 | 1 | -1 | -1 | -1 | | |
| 9 | chr1 | 3E+07 | 3E+07 | P58 | 2125 | + | 0.5442 | 0.3433 | 1.585 | 2.4724 | 0.9564 | 2.585 | 0.9059 | 0.2807 | 1 | 22 | 1 | 20.25 | 0.6988 | 30.41 | chr1 | 3E+07 | 3E+07 | chr1:288 | snoRNA | + | 0.189 | 1 | -1 | -1 | -1 | | |
| 10 | chr1 | 3E+07 | 3E+07 | P274 | 219 | - | 2.8006 | 0.8431 | 3.3219 | 0.5748 | 0.1813 | 3.1699 | 0.3516 | 0.9238 | 1 | 28 | 6 | 13.833 | 7.2015 | 81.22 | chr1 | 3E+07 | 3E+07 | chr1:289 | snoRNA | + | 0.189 | 1 | -1 | -1 | -1 | | |
| 11 | chr1 | 3E+07 | 3E+07 | P273 | 34.25 | - | 0.1903 | 0.1903 | 1 | 0.3821 | 0.3821 | 1 | 0.9708 | 0.9256 | 1 | 18 | 1 | 34.25 | 1.1263 | 46.49 | chr1 | 3E+07 | 3E+07 | chr1:289 | snoRNA | + | 0.189 | 1 | -1 | -1 | -1 | | |
| 12 | chr1 | 3E+07 | 3E+07 | P271 | 2534.8 | - | 1.2967 | 0.3406 | 3.8074 | 1.0037 | 0.3575 | 2.8074 | 0.6944 | 0.8156 | 3 | 25 | 4 | 4.25 | 93.353 | 96.53 | chr1 | 3E+07 | 3E+07 | chr1:314 | snoRNA | + | 0.3333 | 1 | -1 | -1 | -1 | | |
| 13 | chr1 | 3E+07 | 3E+07 | P268 | 233.83 | - | 1.4645 | 0.6307 | 2.3219 | 2.3641 | 0.788 | 3 | 0.511 | 0.3336 | 1 | 25 | 1 | 120.5 | 7.6893 | 81.74 | chr1 | 3E+07 | 3E+07 | chr1:337 | snRNA | + | 0.92 | 1 | -1 | -1 | -1 | | |
| 14 | chr1 | 4E+07 | 4E+07 | P262 | 395 | - | 0.293 | 0.1838 | 1.585 | 2.2237 | 0.8602 | 2.585 | 0.9577 | 0.4 | 1 | 26 | 1 | 35 | 1.1674 | 47.45 | chr1 | 4E+07 | 4E+07 | chr1:368 | snRNA | + | 0.1985 | 1 | -1 | -1 | -1 | | |
| 15 | chr1 | 5E+07 | 5E+07 | P87 | 83.686 | + | 2.4899 | 0.8869 | 2.8074 | 1.2925 | 0.5566 | 2.3219 | 0.2748 | 0.7441 | 3 | 22 | 13 | 2.2308 | 2.7519 | 66.91 | chr1 | 5E+07 | 5E+07 | chr1:45 | snRNA | + | 0.2973 | 1 | -1 | -1 | -1 | | |
| 16 | chr1 | 6E+07 | 6E+07 | P247 | 360.82 | - | 2.7149 | 0.6787 | 4 | 0.5295 | 0.1594 | 3.3219 | 0.3929 | 0.9334 | 1 | 28 | 1 | 142.77 | 11.865 | 85.67 | chr1 | 6E+07 | 6E+07 | chr1:45 | snRNA | + | 0.3836 | 1 | -1 | -1 | -1 | | |
| 17 | chr1 | 8E+07 | 8E+07 | P112 | 45.9 | + | 0.6408 | 0.276 | 2.3219 | 1.7498 | 0.6769 | 2.585 | 0.8974 | 0.4343 | 1 | 21 | 2 | 21.595 | 1.5094 | 54.28 | chr1 | 8E+07 | 8E+07 | chr1:45 | snRNA | + | 0.253 | 1 | -1 | -1 | -1 | | |
| 18 | chr1 | 1E+08 | 1E+08 | P199 | 241.71 | - | 2.478 | 0.8912 | 3.585 | 1.756 | 0.5286 | 3.3219 | 0.313 | 0.5358 | 7 | 26 | 4.25 | 3.3809 | 7.9483 | 82.05 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.0463 | 1 | -1 | -1 | -1 | | |
| 19 | chr1 | 1E+08 | 1E+08 | P198 | 322.26 | - | 3.0994 | 0.8646 | 3.585 | 1.0103 | 0.3041 | 3.3219 | 0.1982 | 0.8392 | 9 | 25 | 1 | 22.5 | 10.597 | 84.93 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.0445 | 1 | -1 | -1 | -1 | | |
| 20 | chr1 | 1E+08 | 1E+08 | P196 | 35.326 | - | 2.0212 | 0.6376 | 3.1699 | 2.6976 | 0.8992 | 3 | 0.5479 | 0.3194 | 1 | 22 | 2 | 10.677 | 1.1616 | 47.28 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.0391 | 1 | -1 | -1 | -1 | | |
| 21 | chr1 | 1E+08 | 1E+08 | P143 | 13.421 | + | 0 | 0 | 0 | 1.348 | 0.674 | 2 | 1 | 0.5585 | 1 | 19 | 9.5 | 2.4127 | 0.4413 | 11.56 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.8261 | 1 | -1 | -1 | -1 | | |
| 22 | chr1 | 1E+08 | 1E+08 | P186 | 181.49 | - | 2.8819 | 0.7569 | 3.8074 | 2.7941 | 0.8411 | 3.3219 | 0.3437 | 0.2658 | 1 | 26 | 12.117 | 6.1484 | 5.9679 | 78.83 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.1074 | 1 | -1 | -1 | -1 | | |
| 23 | chr1 | 1E+08 | 1E+08 | P185 | 79.667 | - | 3.4667 | 0.8481 | 4.0875 | 2.7533 | 0.7232 | 3.8074 | 0.2431 | 0.343 | 1 | 24 | 4.336 | 5.4803 | 2.6197 | 66.11 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.189 | 1 | -1 | -1 | -1 | | |
| 24 | chr1 | 1E+08 | 1E+08 | P154 | 181.49 | - | 2.8819 | 0.7569 | 3.8074 | 2.7941 | 0.8411 | 3.3219 | 0.3437 | 0.2658 | 1 | 26 | 12.117 | 6.1484 | 5.9679 | 78.9 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.1074 | 1 | -1 | -1 | -1 | | |
| 25 | chr1 | 1E+08 | 1E+08 | P180 | 89.842 | - | 2.2434 | 0.5742 | 3.9069 | 3.299 | 0.8444 | 3.9069 | 0.6042 | 0.2162 | 1 | 23 | 1 | 55.297 | 2.9543 | 68.57 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.9375 | 1 | -1 | -1 | -1 | | |
| 26 | chr1 | 1E+08 | 1E+08 | P179 | 79.359 | - | 2.2033 | 0.7848 | 2.8074 | 0.3133 | 0.0874 | 3.585 | 0.3641 | 0.9653 | 3 | 21 | 15.904 | 2.1948 | 2.6096 | 65.88 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.8636 | 0.9048 | 1 | -1 | -1 | -1 | |
| 27 | chr1 | 1E+08 | 1E+08 | P175 | 79.468 | - | 3.4691 | 0.8487 | 4.0875 | 2.7737 | 0.7285 | 3.8074 | 0.242 | 0.3364 | 1 | 24 | 4.5342 | 5.2537 | 2.6132 | 65.92 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.189 | 1 | -1 | -1 | -1 | | |
| 28 | chr1 | 1E+08 | 1E+08 | P160 | 89.277 | + | 2.2529 | 0.5767 | 3.9069 | 2.3299 | 0.8444 | 3.9069 | 0.6017 | 0.2162 | 1 | 23 | 1.565 | 35.334 | 2.9357 | 68.48 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.4167 | 1 | -1 | -1 | -1 | | |
| 29 | chr1 | 1E+08 | 1E+08 | P172 | 79.468 | - | 3.4691 | 0.8487 | 4.0875 | 2.7737 | 0.7285 | 3.8074 | 0.242 | 0.3364 | 1 | 24 | 4.5342 | 5.2537 | 2.6132 | 65.94 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.189 | 1 | -1 | -1 | -1 | | |
| 30 | chr1 | 1E+08 | 1E+08 | P163 | 89.807 | + | 2.2439 | 0.5744 | 3.9069 | 3.299 | 0.8444 | 3.9069 | 0.6041 | 0.2162 | 1 | 23 | 1.0349 | 53.434 | 2.9532 | 68.54 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.9667 | 1 | -1 | -1 | -1 | | |
| 31 | chr1 | 1E+08 | 1E+08 | P170 | 68.342 | - | 2.6747 | 0.6846 | 3.9069 | 3.299 | 0.8444 | 3.9069 | 0.4798 | 0.2162 | 1 | 23 | 22.5 | 2.4577 | 2.2473 | 63.4 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.9375 | 1 | -1 | -1 | -1 | | |
| 32 | chr1 | 1E+08 | 1E+08 | P168 | 79.667 | - | 3.4667 | 0.8481 | 4.0875 | 2.7533 | 0.7232 | 3.8074 | 0.2431 | 0.343 | 1 | 24 | 4.336 | 5.4803 | 2.6197 | 66.11 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.189 | 1 | -1 | -1 | -1 | | |
| 33 | chr1 | 1E+08 | 1E+08 | P165 | 10.408 | + | 0.1032 | 0.0516 | 2 | 0.0637 | 0.0637 | 1 | 0.9889 | 0.9925 | 1 | 17 | 1 | 11.316 | 0.3423 | 11.316 | chr1 | 1E+08 | 1E+08 | chr1:45 | tRF-5-tri | + | 1 | 0.8235 | 1 | -1 | -1 | -1 | |
| 34 | chr1 | 1E+08 | 1E+08 | P166 | 79.468 | - | 3.4691 | 0.8487 | 4.0875 | 2.7526 | 0.723 | 3.8074 | 0.242 | 0.3434 | 1 | 24 | 4.5342 | 5.2537 | 2.6132 | 65.99 | chr1 | 1E+08 | 1E+08 | chr1:45 | snRNA | + | 0.189 | 1 | -1 | -1 | -1 | | |
| 35 | chr1 | 1E+08 | 1E+08 | P164 | 86.121 | - | 0.8007 | 0.2234 | 3.585 | 1.9813 | 0.6604 | 3 | 0.8942 | 0.542 | 1 | 22 | 2.0556 | 38.485 | 2.6132 | 65.99 | chr1 | 1E+08 | 1E+08 | chr1:492 | tRF-5-tri | - | 1 | 0.8182 | 1 | -1 | -1 | -1 | |
| 36 | chr1 | 1E+08 | 1E+08 | P162 | 509.07 | - | 2.0621 | 0.7345 | 2.8074 | 1.0039 | 0.3167 | 3.1699 | 0.4136 | 0.7893 | 5 | 21 | 9.8611 | 8.35 | 11.316 | 11.316 | chr1 | 1E+08 | 1E+08 | chr1:492 | tRF-3-tri | - | 0.9545 | 1 | -1 | -1 | -1 | | |
| 37 | chr1 | 1E+08 | 1E+08 | P161 | 84.91 | - | 0.8098 | 0.2259 | 3.585 | 1.8963 | 0.6288 | 3 | 0.8927 | 0.56 | 1 | 22 | 1.2667 | 60.841 | 11.316 | 11.316 | chr1 | 1E+08 | 1E+08 | chr1:492 | tRF-5-tri | - | 1 | 0.8182 | 1 | -1 | -1 | -1 | |
| 38 | chr1 | 2E+08 | 2E+08 | P166 | 17.739 | + | 0.3584 | 0.2261 | 1.585 | | | | | | | | | | | | | | | | | | | | | | | | |

Download results (Bottom) – download by sncRNA class

Total number of reads falling onto this RNA class

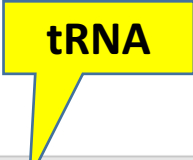
DOWNLOAD PEAK TABLES BY RNA CLASS

| RNA class | Peaks | Genes | Reads | Percentage of reads |
|--------------|-------|-------|-----------|---------------------|
| Annotated | 1,282 | 1,214 | 9,647,188 | 92.84 |
| Unannotated | 4,799 | 4,799 | 744,547 | 7.16 |
| miRNAprimary | 10 | 10 | 646,698 | 6.22 |
| mir-3p | 224 | 224 | 1,779,736 | 17.13 |
| mir-5p | 205 | 205 | 5,706,729 | 54.92 |
| mir-5p3pno | 66 | 66 | 30,553 | 0.29 |
| piRNA | 99 | 99 | 747,600 | 7.19 |
| rRNA | 98 | 81 | 42,675 | 0.41 |
| scRNA | 225 | 215 | 227,677 | 2.19 |
| snRNA | 137 | 132 | 17,896 | 0.17 |
| snoRNA | 34 | 29 | 341,572 | 3.29 |
| tRF3 | 6 | 6 | 1,323 | 0.01 |
| tRF5 | 9 | 9 | 998 | 0.01 |
| tRNA | 169 | 138 | 103,725 | 1.00 |

Step 1: Click to download, e.g. tRNA only loci results from SPAR

Download results (Output)

“peaks.byClass.tRNA.xls” shows all the tRNAs only loci results from SPAR



| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | AA | AB | AC | |
|---------|---------|---------|--------|---------|---------|---------|---------|--------|---------|---------|--------|---------|---------|--------|--------|---------|---------|--------|---------|---------|---------|---------|------------|-----------|----------|---------|-------------|----|--|
| #peakCl | peakChr | peakChr | peakID | peakExp | peakStr | peakEnt | peakNoi | peakMa | peakEnt | peakNoi | peakMa | peakPrc | peakPrc | peakMo | peakMo | beforeP | peakFol | peakRP | peakExp | annotCh | annotCh | annotCh | annotID | annotRf | annotStu | annotOv | peakOverlap | | |
| chr1 | 566409 | 566441 | P208 | 165.52 | - | 1.5066 | 0.3686 | 4.0875 | 1.814 | 0.4765 | 3.8074 | 0.764 | 0.5786 | 1 | 32 | 1 | 127.46 | 77.673 | 83.84 | chr1 | 566375 | 566441 | chr1:566: | tRNA | - | 0.4848 | | 1 | |
| chr1 | 2E+07 | 2E+07 | P182 | 14.343 | - | 0.5828 | 0.5828 | 1 | 1.3059 | 0.6529 | 2 | 0.8606 | 0.481 | 1 | 20 | 1 | 13.343 | 6.7305 | 17.28 | chr1 | 2E+07 | 2E+07 | chr1:170C | tRNA | - | 0.2113 | 0.7143 | | |
| chr1 | 6E+07 | 6E+07 | P150 | 99.897 | - | 2.4114 | 0.6971 | 3.4594 | 2.117 | 0.6119 | 3.4594 | 0.3977 | 0.4232 | 2 | 21 | 14.32 | 2.2292 | 46.878 | 76 | chr1 | 6E+07 | 6E+07 | chr1:554: | tRNA | - | 0.3014 | 1 | | |
| chr1 | 9E+07 | 9E+07 | P133 | 60.214 | - | 2.549 | 0.6113 | 4.1699 | 2.6187 | 0.5789 | 4.5236 | 0.4212 | 0.5349 | 16 | 42 | 6.4 | 3.3179 | 28.256 | 65.29 | chr1 | 9E+07 | 9E+07 | chr1:939: | tRNA | - | 0.5753 | 1 | | |
| chr1 | 9E+07 | 9E+07 | P73 | 61.063 | + | 1.3674 | 0.4558 | 3 | 0.3504 | 0.2211 | 1.585 | 0.7566 | 0.944 | 1 | 19 | 2 | 24.1 | 28.654 | 65.48 | chr1 | 9E+07 | 9E+07 | chr1:943: | tRNA | + | 0.2235 | 1 | | |
| chr1 | 1E+08 | 1E+08 | P90 | 35.067 | + | 2.1212 | 0.5732 | 3.7004 | 3.2388 | 0.8752 | 3.7004 | 0.585 | 0.2006 | 1 | 19 | 1 | 21.515 | 16.455 | 50.18 | chr1 | 1E+08 | 1E+08 | chr1:1465: | tRNA | + | 0.375 | 1 | | |
| chr1 | 1E+08 | 1E+08 | P109 | 28.893 | - | 1.2404 | 0.6202 | 2 | 0 | 0 | 0 | 0.7231 | 1 | 1 | 14 | 10.333 | 3.0219 | 13.558 | 43.39 | chr1 | 1E+08 | 1E+08 | chr1:1492: | tRNA | - | 0.1918 | 1 | | |
| chr1 | 2E+08 | 2E+08 | P116 | 12.143 | + | 0.0923 | 0.0923 | 1 | 1.6628 | 0.8314 | 2 | 0.9882 | 0.3889 | 1 | 22 | 1 | 13 | 5.6982 | 8.34 | chr1 | 2E+08 | 2E+08 | chr1:1615: | tRNA | + | 0.2222 | 0.7273 | | |
| chr1 | 2E+08 | 2E+08 | P117 | 13.813 | + | 1.1905 | 0.5953 | 2 | 0.4819 | 0.2075 | 2.3219 | 0.7538 | 0.9341 | 1 | 16 | 6.5028 | 2.6013 | 6.4817 | 15.05 | chr1 | 2E+08 | 2E+08 | chr1:1615: | tRNA | + | 0.2162 | 1 | | |
| chr1 | 2E+08 | 2E+08 | P177 | 68.028 | + | 0.715 | 0.2547 | 2.8074 | 2.8814 | 0.8329 | 3.4594 | 0.8802 | 0.1998 | 1 | 22 | 1 | 60.875 | 31.923 | 68.13 | chr1 | 2E+08 | 2E+08 | chr1:249: | tRNA | + | 0.1981 | 0.84 | | |
| chr1 | 2E+08 | 2E+08 | P178 | 416.03 | + | 2.2091 | 0.6386 | 3.4594 | 0.9106 | 0.2872 | 3.1699 | 0.3551 | 0.8561 | 5 | 22 | 8.6167 | 3.6693 | 195.23 | 92.45 | chr1 | 2E+08 | 2E+08 | chr1:249: | tRNA | + | 0.2075 | 1 | | |
| chr10 | 7E+07 | 7E+07 | P211 | 64.232 | + | 0.6255 | 0.169 | 3.7004 | 2.6592 | 0.8389 | 3.1699 | 0.9181 | 0.3211 | 1 | 19 | 1 | 60.2 | 30.141 | 66.76 | chr10 | 7E+07 | 7E+07 | chr10:69: | tRNA | + | 0.3049 | 1 | | |
| chr11 | 7E+07 | 7E+07 | P285 | 33.504 | + | 1.8653 | 0.5041 | 3.7004 | 2.9986 | 0.8668 | 3.4594 | 0.5046 | 0.2813 | 5 | 23 | 5 | 3.0667 | 15.722 | 48.42 | chr11 | 7E+07 | 7E+07 | chr11:661: | tRNA | + | 0.2927 | 0.9571 | | |
| chr13 | 3E+07 | 3E+07 | P520 | 29.389 | - | 1.1193 | 0.7062 | 1.585 | 1.9064 | 0.6355 | 3 | 0.6805 | 0.5711 | 1 | 28 | 3 | 7.6667 | 13.791 | 43.93 | chr13 | 3E+07 | 3E+07 | chr13:312: | tRNA | - | 0.2973 | 0.7857 | | |
| chr13 | 4E+07 | 4E+07 | P515 | 93.093 | - | 2.3879 | 0.796 | 3 | 0.5392 | 0.189 | 3.1699 | 0.3343 | 0.9241 | 1 | 22 | 10.467 | 3.9754 | 43.685 | 74.68 | chr13 | 4E+07 | 4E+07 | chr13:416: | tRNA | + | 0.2917 | 0.9545 | | |
| chr14 | 3E+07 | 3E+07 | P469 | 164.52 | + | 1.5134 | 0.3703 | 4.0875 | 1.814 | 0.4765 | 3.8074 | 0.7626 | 0.5786 | 1 | 32 | 2 | 63.732 | 77.203 | 83.65 | chr14 | 3E+07 | 3E+07 | chr14:32: | tRNA | + | 0.4848 | 1 | | |
| chr14 | 7E+07 | 7E+07 | P495 | 32.907 | + | 0.9171 | 0.3548 | 2.585 | 1.2323 | 0.2901 | 4.2479 | 0.8199 | 0.8394 | 1 | 27 | 10.185 | 3.649 | 15.442 | 47.63 | chr14 | 7E+07 | 7E+07 | chr14:73: | tRNA | + | 0.375 | 1 | | |
| chr15 | 4E+07 | 4E+07 | P686 | 32.938 | - | 1.3028 | 0.3766 | 3.4594 | 2.6176 | 0.8725 | 3 | 0.5148 | 0.3322 | 3 | 21 | 1 | 15.667 | 15.409 | 47.59 | chr15 | 4E+07 | 4E+07 | chr15:42: | tRNA | - | 0.2683 | 0.9167 | | |
| chr15 | 8E+07 | 8E+07 | P552 | 25.506 | + | 0.2239 | 0.1413 | 1.585 | 1.8486 | 0.4145 | 4.4594 | 0.9701 | 0.725 | 1 | 27 | 23.774 | 2.057 | 11.969 | 39.37 | chr15 | 8E+07 | 8E+07 | chr15:80: | tRNA | + | 0.3699 | 1 | | |
| chr15 | 9E+07 | 9E+07 | P560 | 591.57 | + | 3.5177 | 0.7575 | 4.6439 | 1.7207 | 0.4519 | 3.8074 | 0.2132 | 0.6654 | 26 | 43 | 4.4995 | 10.375 | 277.6 | 94.39 | chr15 | 9E+07 | 9E+07 | chr15:89: | tRNA | + | 0.589 | 1 | | |
| chr16 | 686734 | 686754 | P763 | 911.02 | - | 2.0836 | 0.6573 | 3.1699 | 0.1019 | 0.0363 | 2.8074 | 0.538 | 0.9899 | 5 | 20 | 62.102 | 3.6824 | 427.51 | 95.81 | chr16 | 686735 | 686806 | chr16:68: | tRNA | - | 0.2676 | 0.95 | | |
| chr16 | 3E+06 | 3E+06 | P571 | 116.42 | + | 2.0454 | 0.6818 | 3 | 0.2589 | 0.1115 | 2.3219 | 0.5146 | 0.9643 | 4 | 20 | 2.037 | 8.1318 | 54.632 | 79.09 | chr16 | 3E+06 | 3E+06 | chr16:32: | tRNA | + | 0.274 | 1 | | |
| chr16 | 3E+06 | 3E+06 | P572 | 294.87 | + | 1.8991 | 0.549 | 3.4594 | 0.1858 | 0.08 | 2.3219 | 0.663 | 0.9781 | 3 | 22 | 3.85 | 4.303 | 138.37 | 90.29 | chr16 | 3E+06 | 3E+06 | chr16:32: | tRNA | + | 0.3014 | 1 | | |
| chr16 | 3E+06 | 3E+06 | P582 | 294.67 | + | 1.8891 | 0.5461 | 3.4594 | 0.1985 | 0.0855 | 2.3219 | 0.6635 | 0.9763 | 3 | 22 | 3.6 | 4.6019 | 138.27 | 90.27 | chr16 | 3E+06 | 3E+06 | chr16:32: | tRNA | + | 0.3014 | 1 | | |
| chr16 | 1E+07 | 1E+07 | P588 | 36.374 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 15 | 2 | 19.187 | 17.069 | 51.34 | chr16 | 1E+07 | 1E+07 | chr16:14: | tRNA | + | 0.2083 | 1 | |
| chr16 | 2E+07 | 2E+07 | P740 | 50.523 | - | 2.1219 | 0.7073 | 3 | 1.8152 | 0.7818 | 2.3219 | 0.5542 | 0.4519 | 1 | 20 | 8.5 | 4.2941 | 23.709 | 61.36 | chr16 | 2E+07 | 2E+07 | chr16:22: | tRNA | - | 0.2439 | 1 | | |
| chr16 | 2E+07 | 2E+07 | P739 | 27.238 | - | 2.4514 | 0.6838 | 3.585 | 3.2661 | 0.836 | 3.9069 | 0.4001 | 0.213 | 1 | 23 | 1 | 13 | 12.782 | 41.55 | chr16 | 2E+07 | 2E+07 | chr16:22: | tRNA | - | 0.3902 | 0.8 | | |
| chr17 | 8E+06 | 8E+06 | P643 | 13.5 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 15 | 1 | 14.5 | 6.335 | 13.56 | chr17 | 8E+06 | 8E+06 | chr17:80: | tRNA | + | 0.1705 | 1 | |
| chr17 | 8E+06 | 8E+06 | P645 | 57.349 | + | 2.2389 | 0.7063 | 3.1699 | 0.5244 | 0.2259 | 2.3219 | 0.5014 | 0.923 | 1 | 19 | 19.297 | 2.4901 | 26.911 | 64.21 | chr17 | 8E+06 | 8E+06 | chr17:80: | tRNA | + | 0.2639 | 1 | | |
| chr17 | 8E+06 | 8E+06 | P646 | 13.682 | + | 0.4877 | 0.1737 | 2.8074 | 2.0583 | 0.7332 | 2.8074 | 0.936 | 0.5388 | 1 | 18 | 7.7333 | 2.7292 | 6.4203 | 14.1 | chr17 | 8E+06 | 8E+06 | chr17:80: | tRNA | + | 0.2195 | 1 | | |
| chr17 | 8E+06 | 8E+06 | P833 | 50.482 | - | 1.7882 | 0.7701 | 2.3219 | 0.6439 | 0.2294 | 2.8074 | 0.5611 | 0.9091 | 1 | 19 | 19.297 | 2.4901 | 23.689 | 61.27 | chr17 | 8E+06 | 8E+06 | chr17:81: | tRNA | - | 0.2639 | 1 | | |
| chr17 | 2E+07 | 2E+07 | P664 | 41.5 | + | 0.8671 | 0.3735 | 2.3219 | 0.2233 | 0.2233 | 1 | 0.8514 | 0.9641 | 1 | 18 | 1 | 36.333 | 19.474 | 55.63 | chr17 | 2E+07 | 2E+07 | chr17:194: | tRNA | + | 0.25 | 1 | | |
| chr17 | 2E+07 | 2E+07 | P665 | 556.58 | + | 2.0738 | 0.6542 | 3.1699 | 0.389 | 0.1675 | 2.3219 | 0.564 | 0.9474 | 3 | 21 | 40.073 | 2.2712 | 261.18 | 94.07 | chr17 | 2E+07 | 2E+07 | chr17:194: | tRNA | + | 0.2917 | 1 | | |
| chr17 | 3E+07 | 3E+07 | P674 | 32.374 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 15 | 6 | 6.3957 | 15.192 | 47.24 | chr17 | 3E+07 | 3E+07 | chr17:29: | tRNA | + | 0.2083 | 1 | |
| chr17 | 4E+07 | 4E+07 | P810 | 23.223 | - | 1.4475 | 0.7237 | 2 | 1.7436 | 0.5812 | 3 | 0.5598 | 0.4829 | 1 | 28 | 1 | 14 | 10.898 | 36.16 | chr17 | 4E+07 | 4E+07 | chr17:36: | tRNA | - | 0.2973 | 0.7857 | | |
| chr17 | 4E+07 | 4E+07 | P809 | 33.292 | - | 0.9682 | 0.3449 | 2.8074 | 1.3061 | 0.3195 | 4.0875 | 0.8135 | 0.8204 | 1 | 27 | 10.303 | 3.6285 | 15.622 | 48.05 | chr17 | 4E+07 | 4E+07 | chr17:36: | tRNA | - | 0.375 | 1 | | |
| chr17 | 7E+07 | 7E+07 | P775 | 2690.3 | - | 1.5571 | 0.381 | 4.0875 | 0.2108 | 0.0703 | 3 | 0.499 | 0.9761 | 8 | 28 | 11.313 | 2.1491 | 1262.5 | 88.11 | chr17 | 7E+07 | 7E+07 | chr17:66: | tRNA | - | 0.3836 | 1 | | |

Download results (Bottom) – download by sncRNA class

Step 2: Click to download, e.g. all unannotated loci from SPAR

Total number of reads falling onto this RNA class

DOWNLOAD PEAK TABLES BY RNA CLASS

| RNA Class | Peaks | Genes | Reads | Percentage of reads |
|--------------|-------|-------|-----------|---------------------|
| Annotated | 1,282 | 1,214 | 9,647,188 | 92.84 |
| Unannotated | 4,799 | 4,799 | 744,547 | 7.16 |
| miRNAprimary | 10 | 10 | 646,698 | 6.22 |
| 5p | 224 | 224 | 1,779,736 | 17.13 |
| 3p | 205 | 205 | 5,706,729 | 54.92 |
| 5p3pno | 66 | 66 | 30,553 | 0.29 |
| | 99 | 99 | 747,600 | 7.19 |
| | 98 | 81 | 42,675 | 0.41 |
| s | 225 | 215 | 227,677 | 2.19 |
| s | 137 | 132 | 17,896 | 0.17 |
| s | 34 | 29 | 341,572 | 3.29 |
| tr | 6 | 6 | 1,323 | 0.01 |
| tr | 9 | 9 | 998 | 0.01 |
| tr | 169 | 138 | 103,725 | 1.00 |

Optional: Click to download all annotated loci from SPAR

Download results (Output)

“peaks_unannot.xls” under “Peak Tables” show all the unannotated peaks found by running SPAR

No annotation

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y |
|----|--------|---------|---------|--------|---------|----------|----------|----------|---------|---------|----------|---------|----------|----------|---------|---------|----------|----------|---------|---------|----------|----------|----------|---------|---------|
| # | peakCh | peakChr | peakChr | peakID | peakExp | peakStra | peakEntr | peakNorr | peakMax | peakJnt | peakNorr | peakMax | peakProp | peakProp | peakMos | peakMos | beforePe | peakFolc | peakPPN | peakExp | annotChi | annotChi | annotChi | annotID | annotRN |
| 1 | chr1 | 564929 | 564950 | P209 | 1061.8 | - | 0.1062 | 0.0378 | 2.8074 | 1.0059 | 0.3891 | 2.585 | 0.9888 | 0.8137 | 1 | 21 | 1.5 | 700.96 | 498.27 | 96.37 | . | -1 | -1 | . | OTHER |
| 3 | chr1 | 568037 | 568065 | P207 | 18.806 | - | 0.4746 | 0.2994 | 1.585 | 1.8945 | 0.5976 | 3.1699 | 0.9202 | 0.6489 | 1 | 28 | 2 | 9.6528 | 8.8247 | 27.87 | . | -1 | -1 | . | OTHER |
| 4 | chr1 | 568136 | 568160 | P1 | 12.608 | + | 0 | 0 | 0 | 2.3345 | 0.9031 | 2.585 | 1 | 0.3082 | 1 | 18 | 6.125 | 3.0585 | 5.9166 | 9.81 | . | -1 | -1 | . | OTHER |
| 5 | chr1 | 568203 | 568220 | P206 | 11.535 | - | 0 | 0 | 0 | 0.4914 | 0.31 | 1.585 | 1 | 0.9034 | 1 | 17 | 1 | 12.535 | 5.4127 | 5.66 | . | -1 | -1 | . | OTHER |
| 6 | chr1 | 568843 | 568873 | P2 | 37.682 | + | 0.0731 | 0.0731 | 1 | 2.712 | 0.7839 | 3.4594 | 0.9912 | 0.3864 | 1 | 27 | 1 | 38.349 | 17.683 | 52.73 | . | -1 | -1 | . | OTHER |
| 7 | chr1 | 1E+06 | 1E+06 | P205 | 369.53 | - | 0.0191 | 0.0191 | 1 | 0.0347 | 0.0347 | 1 | 0.9982 | 0.9964 | 1 | 16 | 6 | 62.477 | 173.4 | 91.69 | . | -1 | -1 | . | OTHER |
| 8 | chr1 | 1E+06 | 1E+06 | P3 | 13.052 | + | 0.087 | 0.087 | 1 | 0 | 0 | 0 | 0.9891 | 1 | 1 | 15 | 3 | 5.3032 | 6.125 | 11.82 | . | -1 | -1 | . | OTHER |
| 9 | chr1 | 1E+06 | 1E+06 | P4 | 219.81 | + | 0.9901 | 0.6247 | 1.585 | 0 | 0 | 0 | 0.5917 | 1 | 1 | 15 | 3 | 44.353 | 103.15 | 87.28 | . | -1 | -1 | . | OTHER |
| 10 | chr1 | 1E+06 | 1E+06 | P204 | 236.5 | - | 1.5563 | 0.9819 | 1.585 | 0.3038 | 0.3038 | 1 | 0.4253 | 0.9458 | 2 | 16 | 2 | 37.458 | 110.98 | 87.91 | . | -1 | -1 | . | OTHER |
| 11 | chr1 | 2E+06 | 2E+06 | P203 | 39.912 | - | 0.9365 | 0.6287 | 1.585 | 0 | 0 | 0 | 0.6655 | 1 | 2 | 15 | 2 | 7.4249 | 18.729 | 54.72 | . | -1 | -1 | . | OTHER |
| 12 | chr1 | 3E+06 | 3E+06 | P202 | 22.048 | - | 0.8166 | 0.8166 | 1 | 0 | 0 | 0 | 0.7466 | 1 | 1 | 15 | 1.3333 | 13.346 | 10.346 | 34.15 | . | -1 | -1 | . | OTHER |
| 13 | chr1 | 3E+06 | 3E+06 | P201 | 178.76 | - | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 14 | 1 | 179.76 | 83.885 | 85.19 | . | -1 | -1 | . | OTHER |
| 14 | chr1 | 4E+06 | 4E+06 | P200 | 63.217 | - | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 14 | 4.95 | 13.771 | 29.665 | 66.24 | . | -1 | -1 | . | OTHER |
| 15 | chr1 | 4E+06 | 4E+06 | P199 | 23.086 | - | 0.2843 | 0.2843 | 1 | 0 | 0 | 0 | 0.9505 | 1 | 1 | 14 | 1.5 | 15.629 | 10.833 | 35.84 | . | -1 | -1 | . | OTHER |
| 16 | chr1 | 5E+06 | 5E+06 | P5 | 15.336 | + | 0.8645 | 0.5455 | 1.585 | 0.1435 | 0.1435 | 1 | 0.802 | 0.9796 | 1 | 16 | 1.0333 | 12.903 | 7.1967 | 19.86 | . | -1 | -1 | . | OTHER |
| 17 | chr1 | 5E+06 | 5E+06 | P198 | 12.07 | - | 0.1286 | 0.1286 | 1 | 0 | 0 | 0 | 0.9822 | 1 | 1 | 15 | 1 | 12.855 | 5.6637 | 7.99 | . | -1 | -1 | . | OTHER |
| 18 | chr1 | 6E+06 | 6E+06 | P197 | 12.032 | - | 0.0424 | 0.0424 | 1 | 0 | 0 | 0 | 0.9954 | 1 | 1 | 15 | 1 | 12.976 | 5.646 | 7.97 | . | -1 | -1 | . | OTHER |
| 19 | chr1 | 6E+06 | 6E+06 | P196 | 61 | - | 0.967 | 0.967 | 1 | 0 | 0 | 0 | 0.6066 | 1 | 1 | 15 | 1 | 38 | 28.625 | 65.46 | . | -1 | -1 | . | OTHER |
| 20 | chr1 | 7E+06 | 7E+06 | P195 | 35.1 | - | 0.1868 | 0.1868 | 1 | 0.5412 | 0.5412 | 1 | 0.9715 | 0.8759 | 1 | 15 | 4.8333 | 8.0552 | 16.471 | 50.23 | . | -1 | -1 | . | OTHER |
| 21 | chr1 | 7E+06 | 7E+06 | P6 | 14.926 | + | 0.4463 | 0.2231 | 2 | 1.4408 | 0.6205 | 2.3219 | 0.9337 | 0.6707 | 1 | 17 | 10.659 | 2.3074 | 7.0039 | 18.73 | . | -1 | -1 | . | OTHER |
| 22 | chr1 | 7E+06 | 7E+06 | P194 | 16.016 | - | 0.9698 | 0.6119 | 1.585 | 0 | 0 | 0 | 0.7766 | 1 | 1 | 15 | 2.5 | 5.9752 | 7.5155 | 21.62 | . | -1 | -1 | . | OTHER |
| 23 | chr1 | 8E+06 | 8E+06 | P193 | 33.786 | - | 1.1748 | 0.7412 | 1.585 | 0.1668 | 0.1668 | 1 | 0.68 | 0.9754 | 1 | 16 | 1 | 23.974 | 15.854 | 48.64 | . | -1 | -1 | . | OTHER |
| 24 | chr1 | 9E+06 | 9E+06 | P192 | 12.962 | - | 0.5719 | 0.3608 | 1.585 | 0.6173 | 0.6173 | 1 | 0.8942 | 0.847 | 1 | 16 | 1.616 | 8.1724 | 6.0827 | 11.13 | . | -1 | -1 | . | OTHER |
| 25 | chr1 | 1E+07 | 1E+07 | P191 | 15.083 | - | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 15 | 1 | 16.083 | 7.078 | 19.29 | . | -1 | -1 | . | OTHER |
| 26 | chr1 | 1E+07 | 1E+07 | P190 | 16.7 | - | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 14 | 3.1333 | 6.3298 | 7.8366 | 23.07 | . | -1 | -1 | . | OTHER |
| 27 | chr1 | 1E+07 | 1E+07 | P7 | 28.167 | + | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 16 | 6 | 5.6945 | 13.218 | 42.44 | . | -1 | -1 | . | OTHER |
| 28 | chr1 | 1E+07 | 1E+07 | P189 | 91.208 | - | 1.4214 | 0.8968 | 1.585 | 0.0466 | 0.0466 | 1 | 0.546 | 0.9949 | 1 | 16 | 3.7833 | 14.162 | 42.8 | 74.48 | . | -1 | -1 | . | OTHER |
| 29 | chr1 | 1E+07 | 1E+07 | P8 | 201.88 | + | 0.0166 | 0.0166 | 1 | 0 | 0 | 0 | 0.9385 | 1 | 1 | 14 | 4.0846 | 50.35 | 94.736 | 86.32 | . | -1 | -1 | . | OTHER |
| 30 | chr1 | 1E+07 | 1E+07 | P9 | 33.125 | + | 0.3437 | 0.3437 | 1 | 0 | 0 | 0 | 0.9358 | 1 | 1 | 16 | 1 | 32 | 15.544 | 47.95 | . | -1 | -1 | . | OTHER |
| 31 | chr1 | 2E+07 | 2E+07 | P188 | 65.392 | - | 0.1309 | 0.0826 | 1.585 | 0.0059 | 0.0059 | 1 | 0.9839 | 0.9995 | 1 | 16 | 1 | 65.341 | 30.686 | 67.3 | . | -1 | -1 | . | OTHER |
| 32 | chr1 | 2E+07 | 2E+07 | P10 | 26.967 | + | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 14 | 2.7 | 10.988 | 12.654 | 41.19 | . | -1 | -1 | . | OTHER |

Run log (Output)

Step 1: click this to minimize "Download results"

DOWNLOAD RESULTS -

| Content | Description | Download |
|------------------------|---|--|
| Peak tracks | Genome-wide tracks | <ul style="list-style-type: none"> plus strand [bigBED] [382.36 KB] minus strand [bigBED] [384.94 KB] |
| Raw signal tracks | Genome-wide tracks | <ul style="list-style-type: none"> plus strand [bigWig] [3.66 MB] minus strand [bigWig] [3.66 MB] |
| Peak tables | Tables with detailed information: 1. Annotated peaks: peaks overlapping snRNA genes or mature products with annotations. 2. Unannotated peaks: peaks that do not overlap with annotated snRNA genes or mature products. | <ul style="list-style-type: none"> Annotated peaks [xls] Unannotated peaks [xls] All called peaks [xls] [bed] |
| Gene expression | Small RNA gene expression | Gene expression table (xls) [3.31 MB] |
| Comparison with DASHR | Integrated expression tables | <ul style="list-style-type: none"> Annotated peaks [xls] Unannotated peaks [xls] All (Annotated + Unannotated) peaks [xls] [bed] Peaks not in DASHR [xls] |
| Comparison with ENCODE | Integrated expression tables | <ul style="list-style-type: none"> Annotated peaks [xls] Unannotated peaks [xls] All (Annotated + Unannotated) peaks [xls] [bed] Peaks not in ENCODE [xls] |

DOWNLOAD PEAK TABLES BY RNA CLASS

| RNA class | Peaks | Genes | Reads | Percentage of reads |
|--------------|-------|-------|-----------|---------------------|
| Annotated | 1,282 | 1,214 | 9,647,188 | 92.84 |
| Unannotated | 4,799 | 4,799 | 744,547 | 7.16 |
| miRNAprimary | 18 | 18 | 646,698 | 6.22 |
| mir-3p | 224 | 224 | 1,779,736 | 17.13 |
| mir-5p | 265 | 265 | 5,786,729 | 54.92 |
| mir-3p&pno | 66 | 66 | 38,553 | 0.29 |
| piRNA | 99 | 99 | 747,688 | 7.19 |
| rRNA | 98 | 81 | 42,675 | 0.41 |
| scRNA | 225 | 215 | 227,677 | 2.19 |
| snRNA | 137 | 132 | 17,896 | 0.17 |
| snRNA | 34 | 29 | 341,572 | 3.29 |
| trf3 | 6 | 6 | 1,323 | 0.01 |
| trf3 | 9 | 9 | 998 | 0.01 |
| tRNA | 169 | 138 | 183,725 | 1.88 |

RUN LOG +

Step 2: click this to maximize "Run log"

Questions?
SPAR@tsanwanglab.org

Wang Lab | Stem Neurodevelopmental Genomics Center | UC Berkeley

Run log (Output)

Run log displayed again

RUN LOG

```
Genome: hg38
Fri, 26 Jan 2018 15:37:49 -0500 ..... Loading PLUS strand: http://dashr2.lisanwanglab.org/DASHRv2/tracks/hg38/ENCODE_dataportal_hg38/fron
Fri, 26 Jan 2018 15:37:49 -0500 ..... Loading MINUS strand: http://dashr2.lisanwanglab.org/DASHRv2/tracks/hg38/ENCODE_dataportal_hg38/fro
Fri, 26 Jan 2018 15:37:49 -0500 ..... Starting SPAR run
Fri, 26 Jan 2018 15:37:49 -0500 ..... Analysis parameters: min. fold change=2; min. coverage=10; min. size=14; max. size=44
bash run_SPAR.sh SPAR_out/ca8ac37/tracks/raw.pos.bigWig SPAR_out/ca8ac37 pos SPAR_out/ca8ac37/config.hg38.sh 2>&1
Fri, 26 Jan 2018 15:37:49 -0500 ..... Processing job ca8ac37.....
Fri, 26 Jan 2018 15:37:55 -0500 ..... DONE.

Fri, 26 Jan 2018 15:37:55 -0500 ..... Sending results to the web server.....
Fri, 26 Jan 2018 15:39:38 -0500 ..... Processed 10,391,735 reads in 109 seconds (95,337 reads / second)

Fri, 26 Jan 2018 15:39:38 -0500 ..... Creating plots
Fri, 26 Jan 2018 15:39:46 -0500 ..... DONE creating plots
```

SPAR run log

Send questions to this email:
SPAR@lisanwanglab.org

END