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smRNA-Seq Service Sample Report:

Workflow Checklist

Sample Received	✓
RNA Isolation	✓
Sample Quality Check	✓
Sample Prepared for Sequencing	✓
Next-Gen Sequencing	✓
Sequence Quality Check	✓
Bioinformatics Analysis	✓
Data/Results	✓

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Materials & Methods

The samples were arrived frozen and total RNA were isolated then prepared for total RNA-Seq analysis according to the methods outlined below.

RNA Isolation: If RNA extraction was performed, one of below RNA extraction kits was used depending on the sample input and storage method. The manufacturer's instructions were followed, unless otherwise stated. The kit used in this project is marked below.

☐ *Quick*-RNA FFPE Miniprep Kit (Zymo Research, Irvine, CA)

☐ *Quick*-RNA Microprep Kit (Zymo Research, Irvine, CA)

☒ *Quick*-RNA Miniprep Plus Kit (Zymo Research, Irvine, CA)

☐ *Quick*-cfRNA Serum&Plasma Kit (Zymo Research, Irvine, CA)

☐ Direct-zol RNA Miniprep Plus (Zymo Research, Irvine, CA)

☐ N/A (RNA Extraction Not Performed)

Additional Notes: N/A

Purified RNA was DNase treated to remove DNA contamination and then quality and quantity checked using a Nanodrop instrument.

RNA-Seq Library preparation: smRNA-Seq libraries were constructed from approximately 100 ng of total RNA. Libraries were prepared using RealSeq®-AC Kit from Somagenics according to the manufacturer's instructions. smRNA-Seq libraries were sequenced on an Illumina platform.

Sequence Data Alignments and Differential Expression Analysis: Sequencing reads from smRNA-Seq data files were first adaptor trimmed, and then analyzed using the STAR program (version 2.7.0f) for alignment of short reads to the *Mus musculus* reference genome– mm10.

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Sample Information

Sample ID	Original Sample Label
in1554_1	L_27_Penumbra
in1554_2	L_28_Penumbra
in1554_3	L_29_Penumbra
in1554_4	L_30_Penumbra
in1554_5	L_31_Penumbra
in1554_6	L_33_Penumbra
in1554_7	L_34_Penumbra
in1554_8	L_35_Penumbra
in1554_9	L_37_Penumbra
in1554_10	L_38_Penumbra
in1554_11	L_41_Penumbra
in1554_12	L_42_Penumbra
in1554_13	L_43_Penumbra
in1554_14	L_50_Penumbra
in1554_15	L_52_Penumbra
in1554_16	L_53_Penumbra
in1554_17	L_56_Penumbra
in1554_18	L_58_Penumbra
in1554_19	L_60_Penumbra
in1554_20	L_62_Penumbra
in1554_21	L_63_Penumbra

Data Analysis Report

The complete data report including all sequence data quality assessments, associated figures and downloadable FASTQ files can be accessed from the html file attached to the e-mail.

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