

SUPPLEMENTAL FIGURES

Supplemental Figure S1; *Related to Figure 1*, details of microarray experiments and additional validations.

Supplemental Figure S2; *Related to Figure 2*, additional RT-PCR validations, and hnRNP A2/B1 depletion in primary human fibroblasts

Supplemental Figure S3; *Related to Figure 3*, CLIP-seq experimental details, fraction of regulated exons with nearby CLIP data, and results of a higher separation score cutoff analysis

Supplemental Figure S4; *Related to Figure 4*, hnRNP binding enrichment for tissue specific AS exons and evolutionarily conserved AS exons

Supplemental Figure S5; *Related to Figure 5*, western blot for hnRNP proteins across all knockdowns

Supplemental Figure S6. *Related to Figure 6*, cancer-associated event validations with Fluidigm platform

SUPPLEMENTAL TABLES

Supplemental Table S1; *Related to Figure 3/Supplemental Experimental Procedures*, CLIP-seq sequencing details

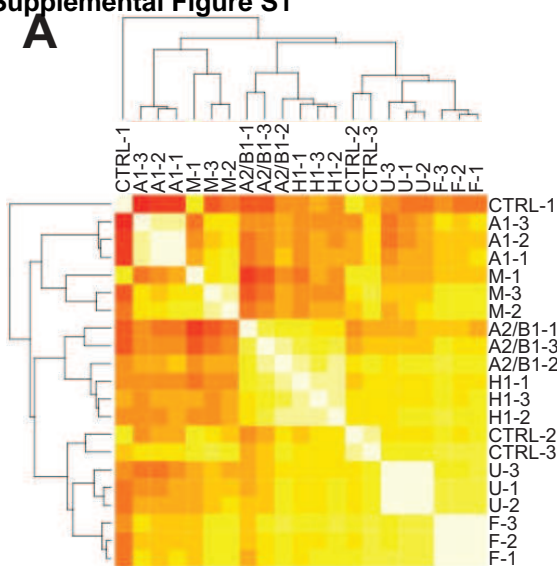
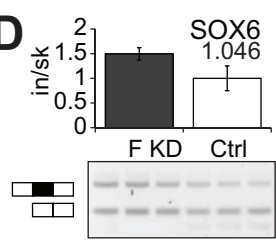
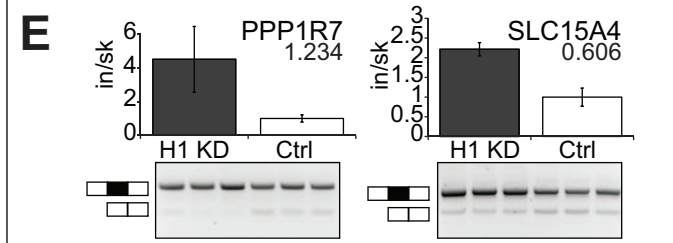
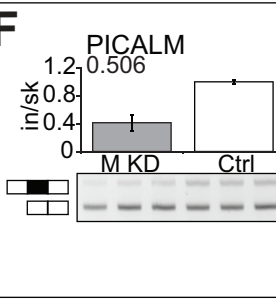
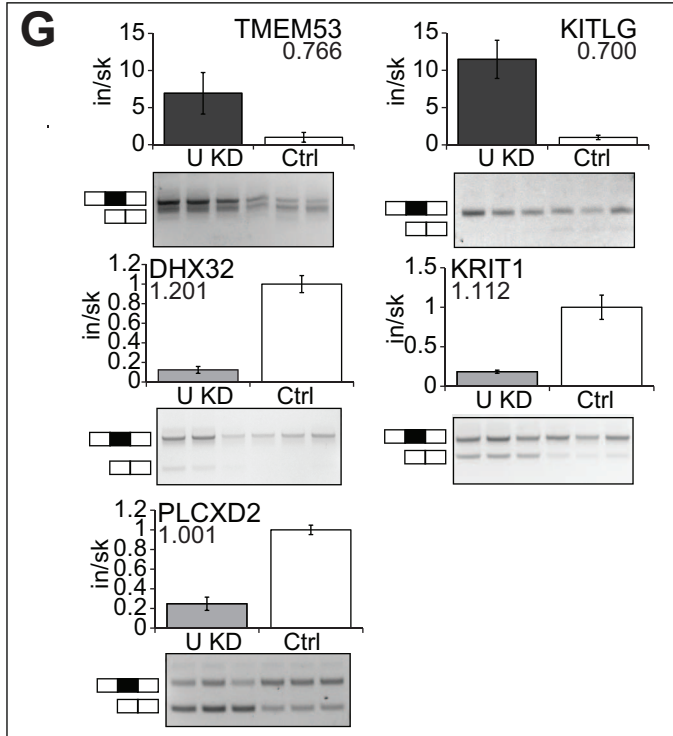
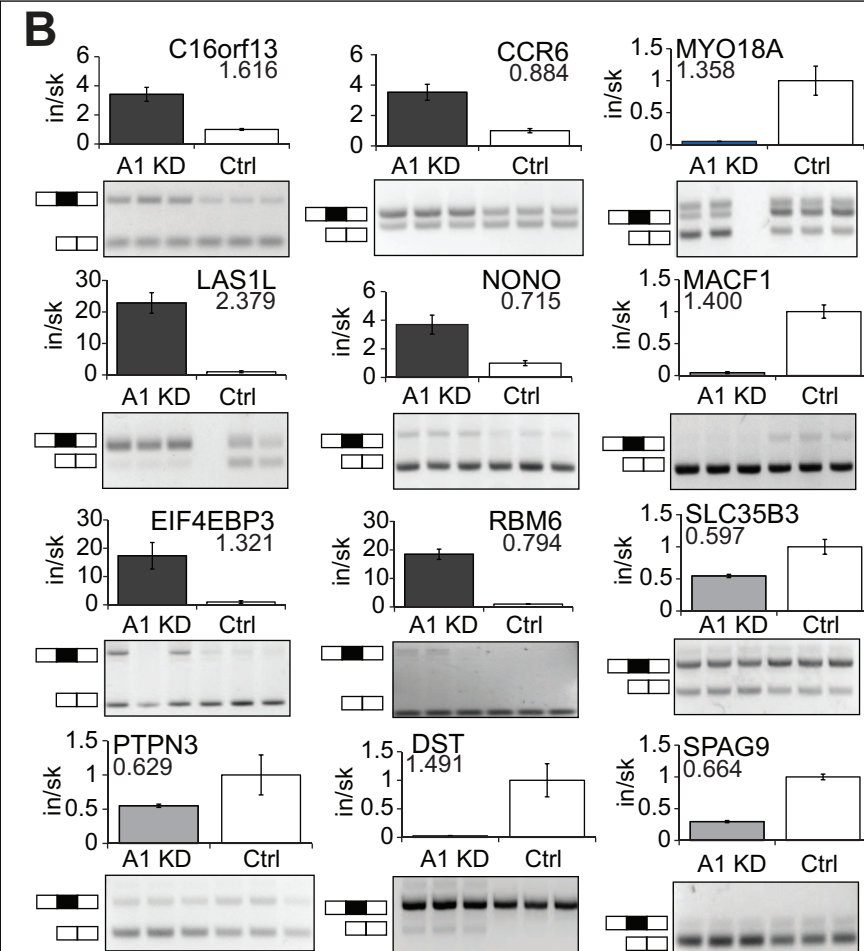
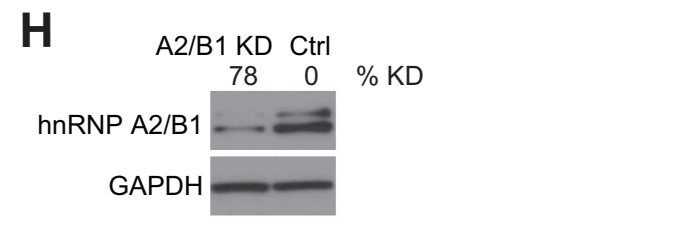
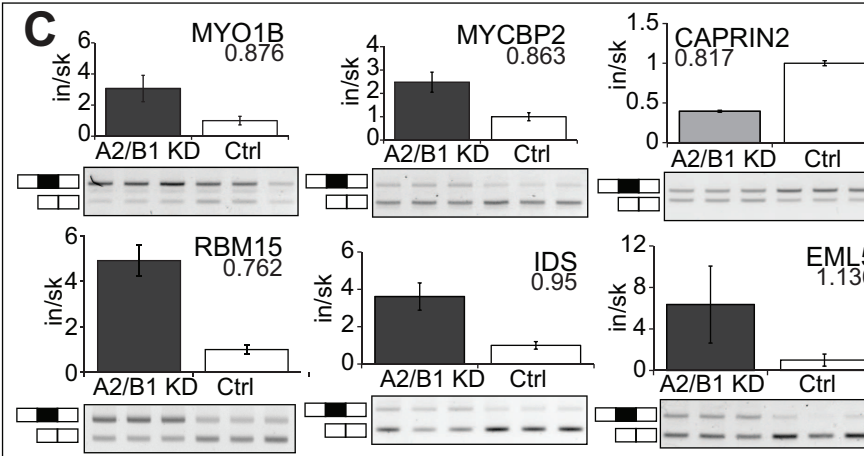
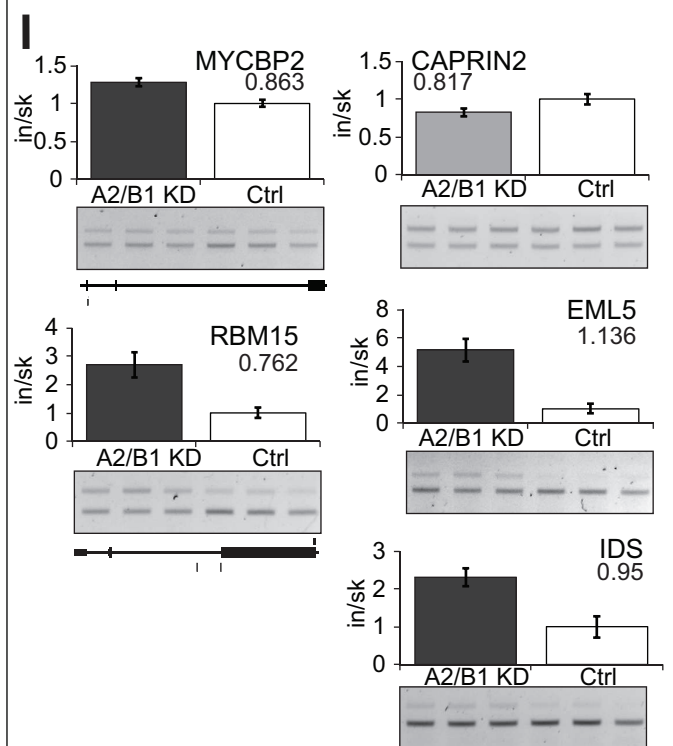
Supplemental Table S2; *Related to Figure 3*, Fraction of hnRNP events bound by each hnRNP

Supplemental Table S3; *Related to Figure 1,S1/Supplemental Experimental Procedures*, siRNA and ASO sequences

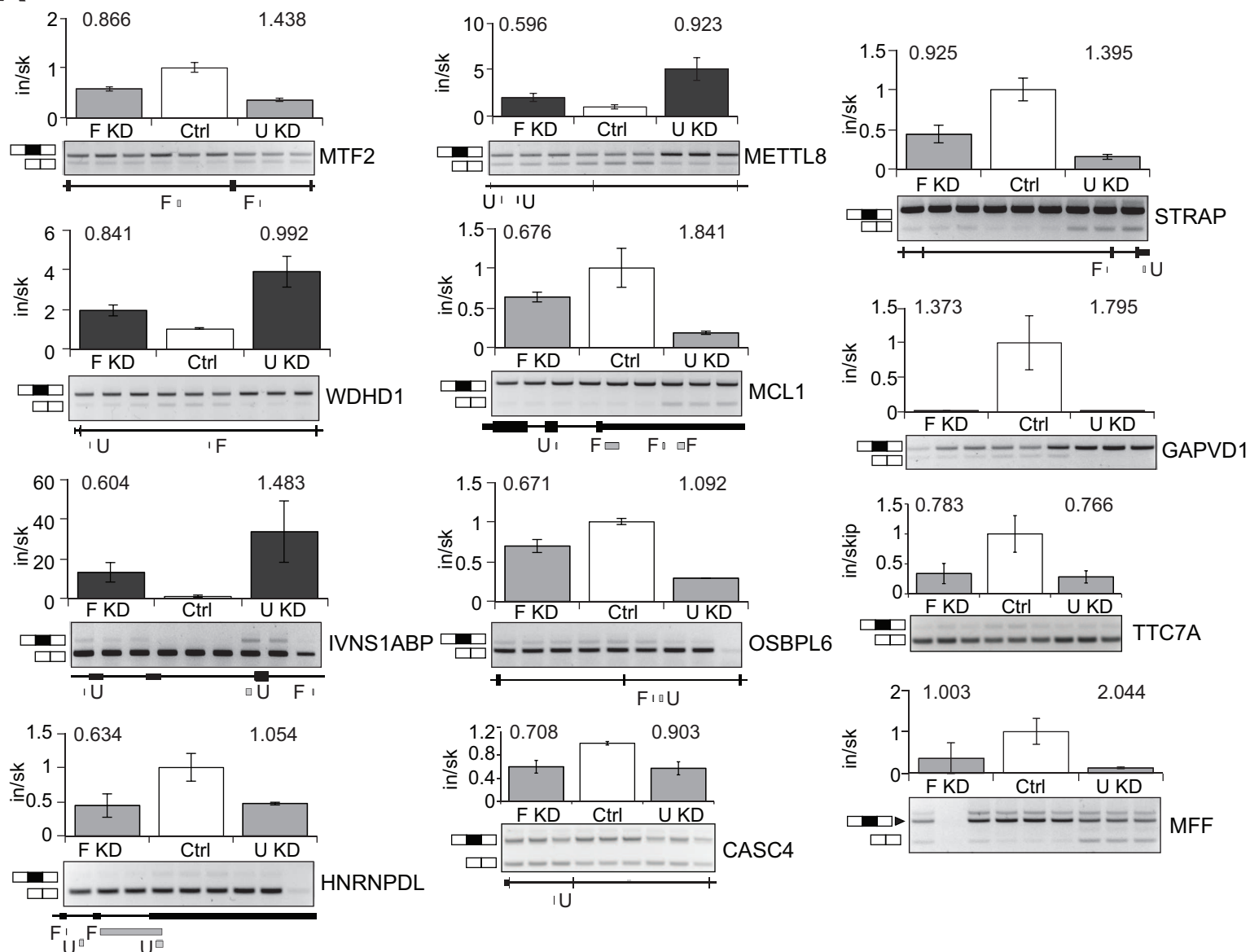
Supplemental Table S4; *Related to Figure 1,2,5,S1,S2/Supplemental Experimental Procedures*, RT-PCR and qRT-PCR primers

SUPPLEMENTAL EXPERIMENTAL PROCEDURES

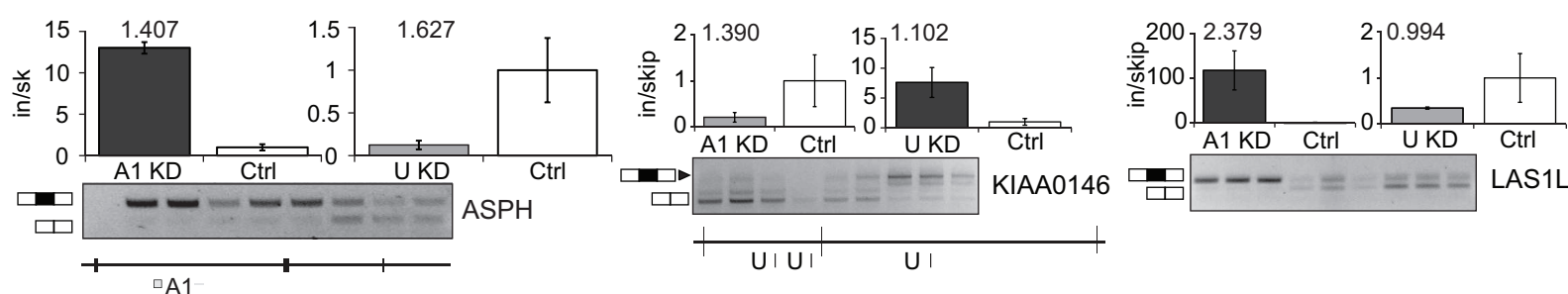
- **Cell culture and transfections**
- **Western blot analysis**
- **Microarray analysis for splicing changes**
- **RT-PCR and qRT-PCR validations**
- **Crosslinking immunoprecipitation followed by high-throughput sequencing (CLIP-seq)**
- **Human (hg18) gene structure annotation**
- **CLIP-seq data processing and cluster generation**
- **Motif Analysis**
- **RNA splicing maps**
- **Tissue specific exon analysis**
- **Gene ontology analysis**
- **RNA sequencing preparation (RNA-seq)**
- **RNA-seq data processing and gene expression analysis**
- **RBP and cancer target analysis**

A**D****E****F****G****B****H****C****I**

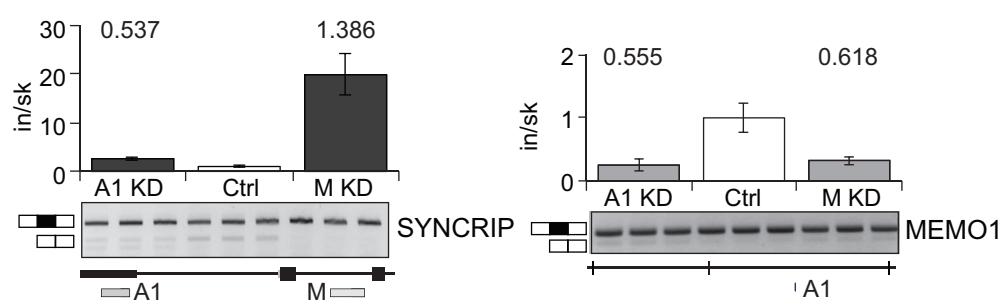
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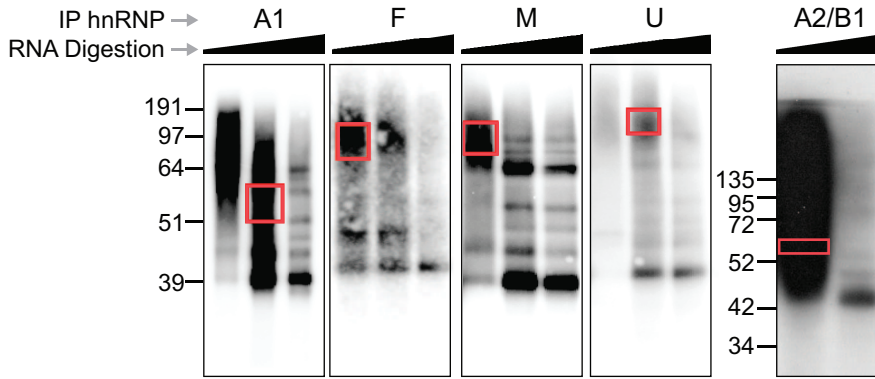
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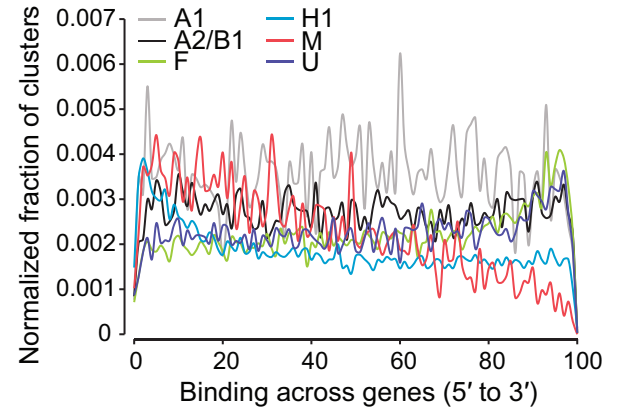
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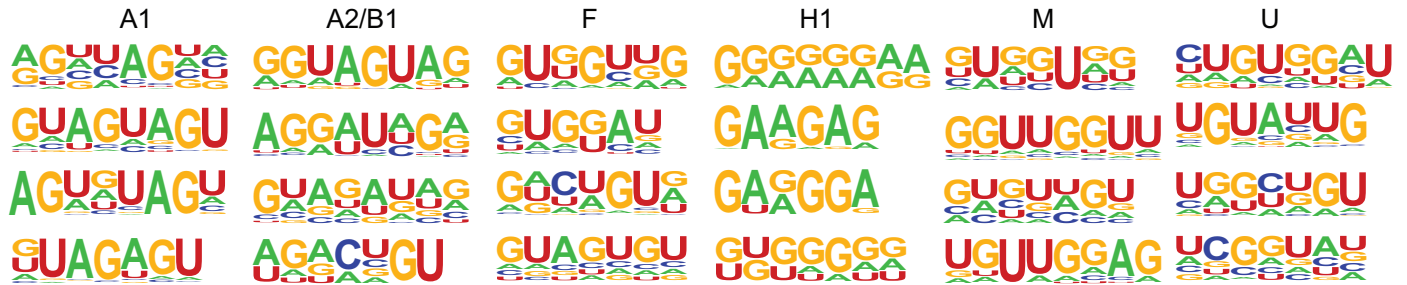
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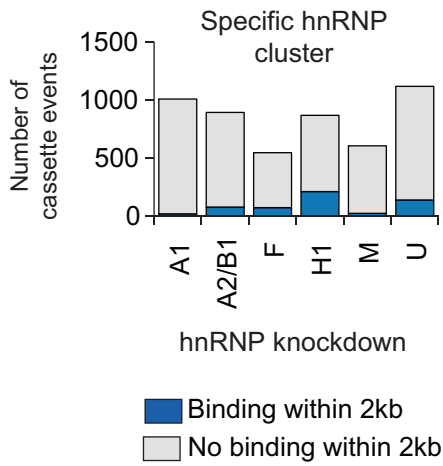
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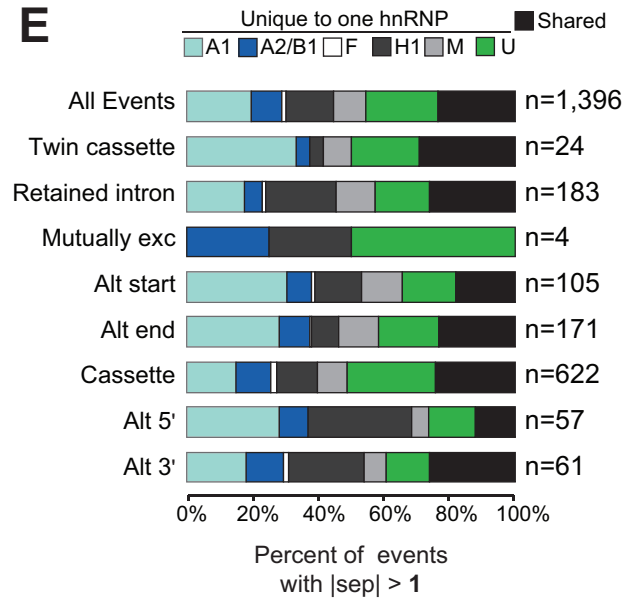
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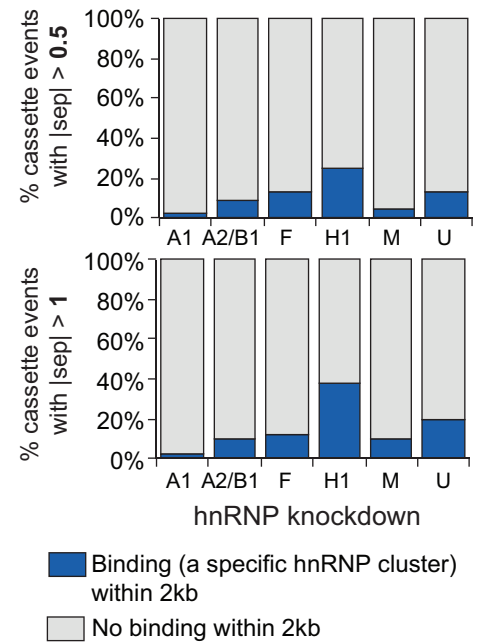
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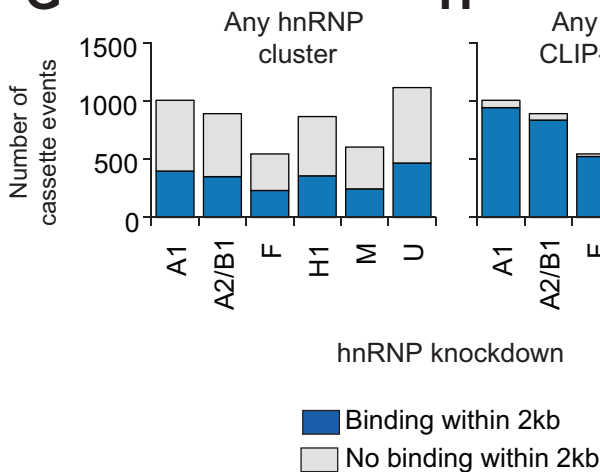
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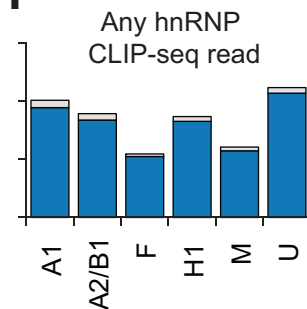
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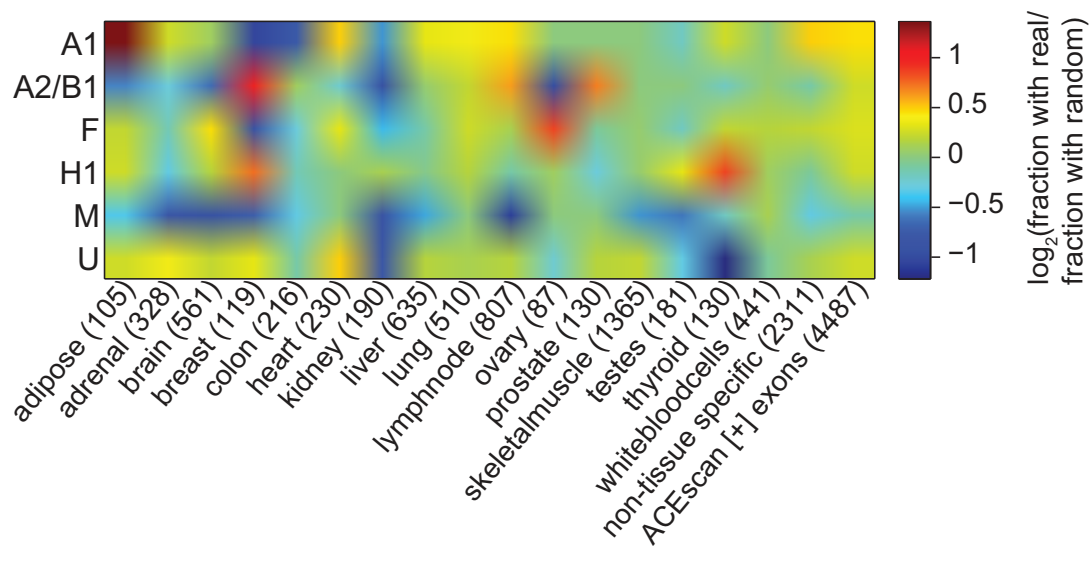
G



H



Supplemental Figure S4



Supplemental Figure S6

