

1 **SUPPLEMENTARY INFORMATION**

2 **The upstream 5' splice site remains associated to the transcription**  
3 **machinery during intron synthesis**

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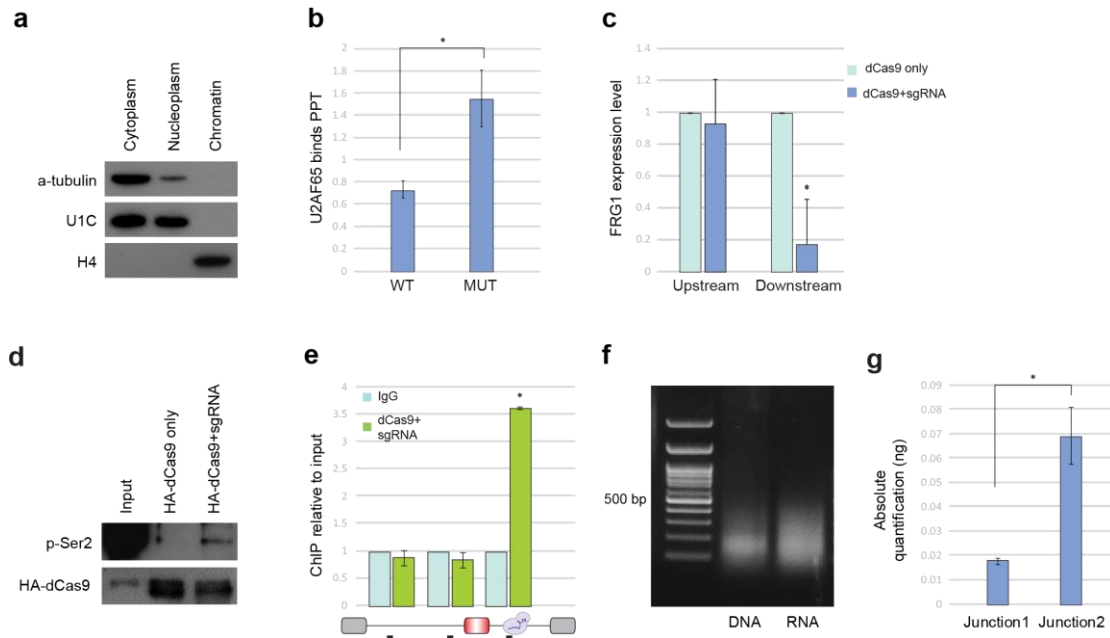
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28 **Supplementary Figures**

29 **Supplementary Figure 1**



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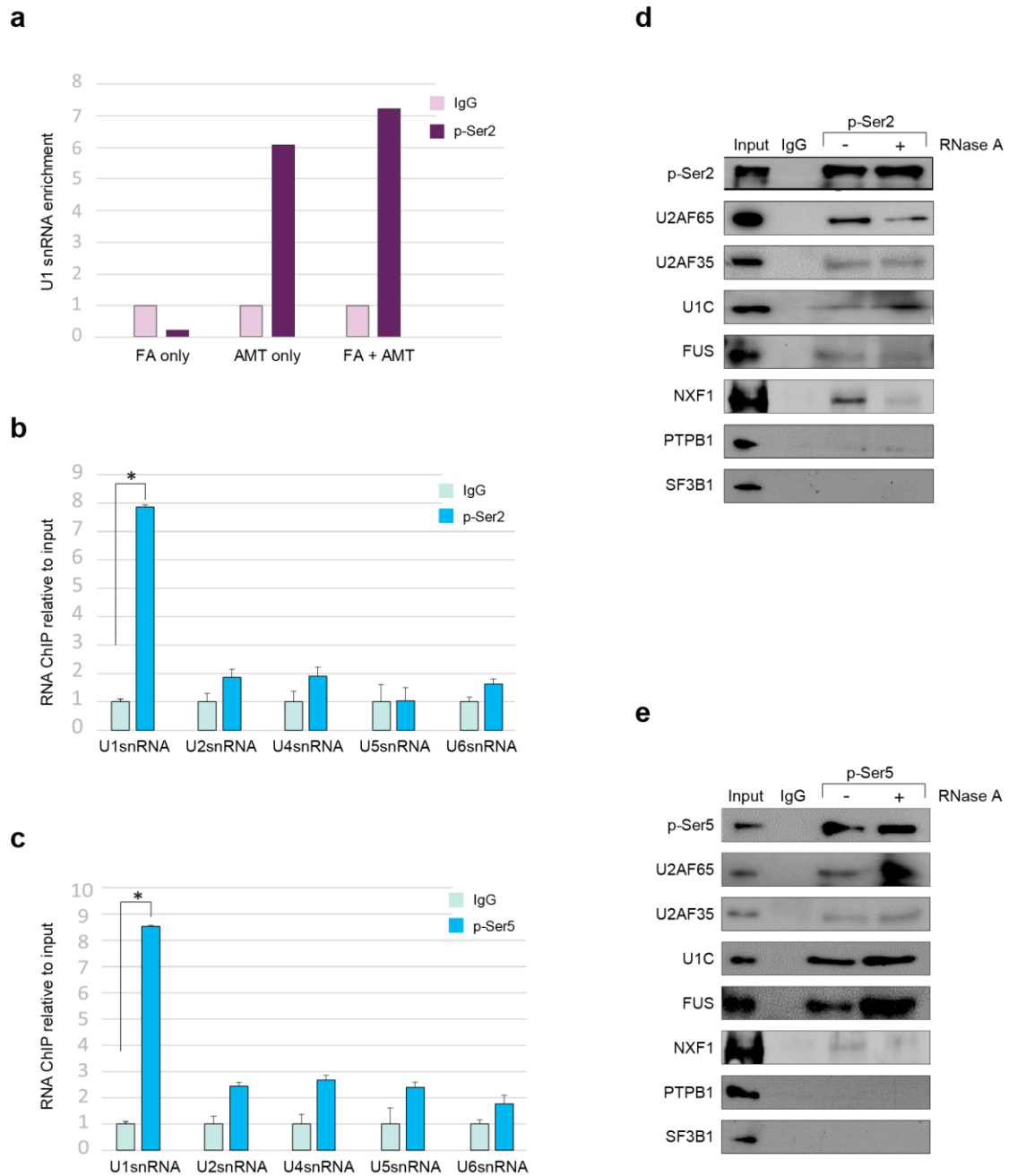
31 **Supplementary Figure 1. CRISPR- interference analyses.** **a.** HEK293 cells  
32 fractionation. a western blot was done with anti- $\alpha$ -tubulin, anti-U1C, and anti-Histone  
33 4 antibodies detected in the cytoplasmic, nucleoplasmic, and chromatin fractions,  
34 respectively. Twenty-five micrograms of total protein from each fraction was loaded  
35 per lane. Source data are provided as a Source Data file. **b.** *FRG1* WT and MUT cells  
36 were crosslinked with FA and nuclei were isolated. RNA was fragmented with MNase  
37 and sonication. Immunoprecipitation was performed using U2AF65 antibody, the RNA  
38 was extracted, and qRT-PCR was performed to examine the enrichment of the PPT of  
39 intron 1 *FRG1* minigene.  $N=3$  independent experiments. Error bars show mean values  
40  $\pm$  SEM. Asterisk indicates  $P = 0.037$  two-tailed t-test. **c.** *FRG1* WT cells were  
41 transfected with a plasmid for expression of HA-dCas9 with or without the plasmid for  
42 expression of sgRNA targeted against a location in the middle of *FRG1* intron 2. After  
43 48 h RNA was extracted and RT was done using hexamers primer. Relative *FRG1* RNA  
44 level were measured using qRT-PCR with primers specific for nascent *FRG1* transcript.  
45 The primers were located near the start and end of the transcript.  $N=3$  independent  
46 experiments. Error bars show mean values + SEM. Asterisk indicates  $P = 0.037$  two-

47 tailed t-test. **d.** The CRISPR interference-based protocol was performed. After HA-  
48 dCas9 IP, a western blot was done with anti-p-Ser2 pol II and anti-HA antibodies.  
49 Source data are provided as a Source Data file. **e.** CRISPR interference-based protocol  
50 targeting the middle intron of the *FRG1* minigene was performed, and mean DNA levels  
51 were measured by qPCR.  $N=3$  independent experiments. Error bars show mean values  
52  $\pm$  SEM. Asterisk indicates  $P = 0.020$  two-tailed t-test. Each bar corresponds to the  
53 amplified segment marked in the gene diagram below the graph. The sgRNA binding  
54 is indicated as a purple shape. **f.** Agarose gel of purified DNA and RNA after MNase  
55 and sonication treatment. **g.** RNA extraction from WT cells CRISPR interference-based  
56 protocol. RNA was quantified by absolute qRT-PCR.  $N=3$  independent experiments.  
57 Error bars show mean values  $\pm$  SEM. Asterisk indicates  $P = 0.032$  two-tailed t-test.  
58 Junction-1 denotes the exon 1- intron 1 junction, and Junction-2 denotes the exon 2-  
59 intron 2 junction.

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62 **Supplementary Figure 2**



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64 **Supplementary Figure 2. U1 snRNP associates with pol II.** **a.** HEK293 cells were  
 65 either crosslinked or not with FA and AMT, followed by purification of nuclei,  
 66 sonication, and RNA-ChIP using p-Ser2 pol II antibody or IgG antibody as a control.  
 67 Total RNA was extracted and reverse transcribed using RT-FLEX with hexamer  
 68 primers. U1 snRNA was quantified by qRT-PCR in one experiment. **b, c.** HEK293 cells  
 69 were treated with FA and AMT, followed by UV irradiation, purification of nuclei, and

70 DNA and RNA fragmentation, and RNA-ChIP with antibodies against: p-Ser2 (**b**) and  
71 p-Ser5 (**c**) pol II CTD. snRNA levels were measured by qRT-PCR.  $N=4$  for **b** and  $N=3$   
72 for **c** independent experiments. Error bars show mean values + SD. Asterisk indicates  
73 for panel **b**  $P = 1.23 \times 10^{-6}$ , for panel **c**  $P = 4.7 \times 10^{-4}$ , two-tailed t-test. **d, e.** Nuclear  
74 extracts of HEK293 cells were treated or not with RNase A and subjected to  
75 immunoprecipitation with antibodies against: p-Ser2 (**d**) and p-Ser5 (**e**) pol II CTD.  
76 Western blotting was performed with the indicated antibodies. Source data are provided  
77 as a Source Data file.

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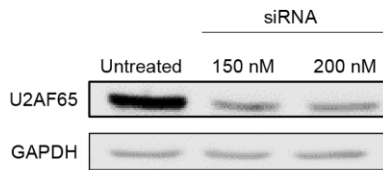
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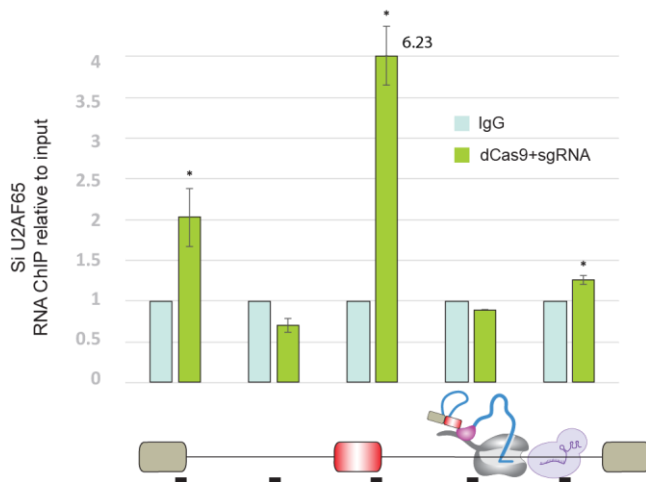
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93 **Supplementary Figure 3**

**a**



**b**



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96 **Supplementary Figure 3. U2AF2 and the PPT are not essential for 5'SS association**

97 **with pol II.** **a.** Western blot analysis of total protein extracted 48 h after U2AF2 KD

98 using 150 nM or 200 nM of siRNA. Source data are provided as a Source Data file. **b.**

99 CRISPR interference-based experiment was performed after U2AF65 siRNA to

100 evaluate the association of various transcript regions with pol II located mid-intron 2 of

101 WT *FRG1* minigene. Mean RNA levels were measured.  $N=3$  independent experiments.

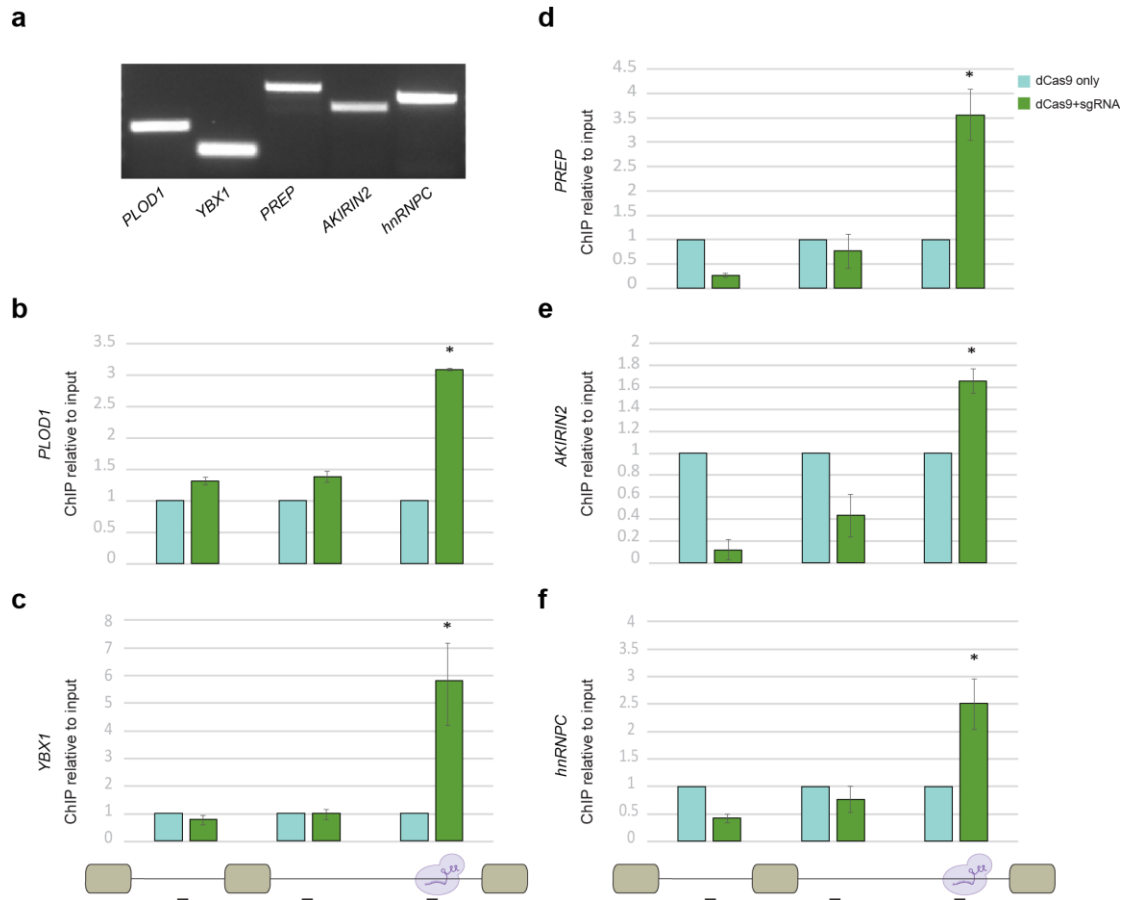
102 Each bar corresponds to the amplified segment marked in the gene diagram below the

103 graph. Error bars show mean values  $\pm$  SEM. From left to right asterisk indicates  $P =$

104 0.05,  $P = 0.007$ ,  $P = 0.002$ , two-tailed t-test.

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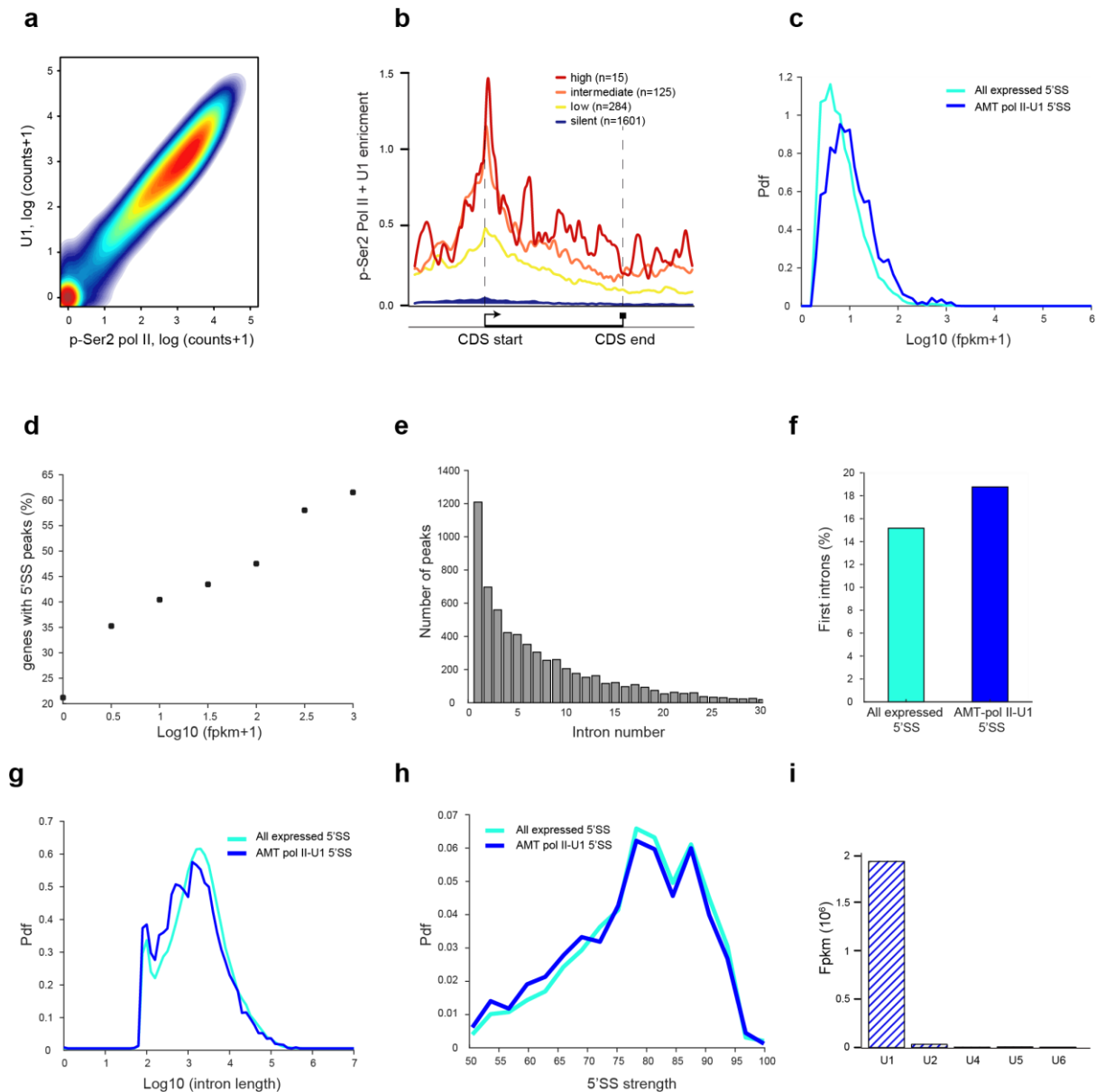
106 **Supplementary Figure 4**



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108 **Supplementary Figure 4. Splicing pattern of the endogenous genes, and sgRNA**  
 109 **binding efficient.** **a.** Total RNA was extracted from HEK293 cell line. RT-PCR was  
 110 performed to examine splicing pattern of the selected three exons. Source data are  
 111 provided as a Source Data file. **b-f.** Binding specificity of the sgRNAs. CRISPR  
 112 interference-based protocol targeting the middle intron of the indicated genes was  
 113 performed, and mean DNA levels were measured by qPCR.  $N=3$  independent  
 114 experiments. Error bars show mean values  $\pm$  SEM. Asterisk indicates for panel b  $P =$   
 115  $4.4 \times 10^{-8}$ , for panel c  $P = 0.016$ , for panel d  $P = 0.008$ , for panel e  $P = 0.004$ , for panel  
 116 f  $P = 0.03$ , two-tailed t-test. Each bar corresponds to the amplified segment marked in  
 117 the gene diagram below the graph. The sgRNA binding is indicated as a purple shape.

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121 **Supplementary Figure 5. p-Ser2 pol II and U1 travel together on expressed genes.** a. p-  
 122 Ser2 pol II and U1 ChIP signals are highly correlated. Pearson coefficient = 0.9887,  $P = 2.2 \times 10^{-16}$ ,  
 123 one-tailed correlation test. b. p-Ser2 pol II:U1C occupancy over intronless genes surrounded  
 124 by 500 bp flanking sequences around the coding regions. Genes were divided based on  
 125 expression (fpkm) into high, intermediate, low, and silent. Coding regions were scaled to 1000  
 126 bp. c. Expression distribution of pol II-U1-5'SS peaks in expressed genes compared to all 5'SS  
 127 in expressed genes. d. Percentage of genes with pol II-U1-5'SS peaks among expressed genes



128 with different expression level thresholds. **e.** Intron number distribution of the pol II-U1-5'SS  
129 peaks in expressed genes. **f.** The fraction of first introns among pol II-U1-5'SS peaks in  
130 expressed genes compared to all 5'SS in expressed genes. One-tailed population proportion test  
131  $z$  is  $-7.8407$ ,  $P < 10^{-10}$ .  $N=126,770$  expressed junctions. **g.** Intron length and **h.** 5'SS strength  
132 of pol II-U1-5'SS peaks in expressed genes compared to all 5'SS in expressed genes. **i.**  
133 Spliceosomal snRNA levels (fpkm) in double RNA-ChIP sample, Pdf – probability density  
134 function.

135 **Supplementary Tables**

136 **Supplementary Table 1: Oligonucleotide sequences used in the cloning of single guide**  
 137 **RNAs.** Each sgRNA oligonucleotide was annealed to its complementary oligonucleotide  
 138 before cloned into pX552 sgRNA expression plasmid. All sgRNAs used in this work are listed.

Name	Sequence (5' - 3')	Notes
<i>FRG1</i> - intron 1-1	ATCCCAGGAGATTCTCGGTA	Targets intron 1 of <i>FRG1</i> minigene
<i>FRG1</i> - intron 1-2	TTACCTTACCGAGAATCTCC	Targets intron 1 of <i>FRG1</i> minigene
<i>FRG1</i> - intron 2-1	GGCACAGGTTTAAATCGTCT	Targets intron 2 of <i>FRG1</i> minigene
<i>FRG1</i> - intron 2-2	AGTATCTCATCCTAACTAGT	Targets intron 2 of <i>FRG1</i> minigene
<i>PLOD1</i> -1	GTTCCCGGAAACAATTACC	Targets intron 17 of <i>PLOD1</i> gene
<i>PLOD1</i> -2	GAATTGTGAGAATTAACCG	Targets intron 17 of <i>PLOD1</i> gene
<i>YBX1</i> -1	AACCCTTAAGGGTTGCCAAC	Targets intron 3 of <i>YBX1</i> gene
<i>YBX1</i> -2	CTGCTATCCCCTATGACTGC	Targets intron 3 of <i>YBX1</i> gene
<i>AKIRIN2</i> -1	ATGTTTCAACCACTAATACC	Targets intron 2 of <i>AKIRIN2</i> gene
<i>AKIRIN2</i> -2	GGGCACTAGACTGTATTAGC	Targets intron 2 of <i>AKIRIN2</i> gene
<i>hmRNPC</i> -1	GCCTTAGACAGTTCCTAATT	Targets intron 2 of <i>hmRNPC</i> gene
<i>hmRNPC</i> -2	TAGAGTTCTAATGCTAGATT	Targets intron 2 of <i>hmRNPC</i> gene
<i>PREP</i> -1	TCACCGTTCAACCACTAAG	Targets intron 9 of <i>PREP</i> gene
<i>PREP</i> -2	GCGGCAAACCTTTGTAACCCA	Targets intron 9 of <i>PREP</i> gene

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143 **Supplementary Table 2: Oligonucleotide sequences used in PCR and quantitative PCR.**  
 144 Primer sequences are included for different assays: splicing by RT-PCR of *FRG1* minigene  
 145 and endogenous genes, qRT-PCR for co-transcriptional analysis, ChIP and RNA ChIP  
 146 experiments.

Name	Sequence (5' - 3')	Assay
<i>FRG1</i> minigene-F	AAAGGTACCTTGATGAGGGCCCTAGTCCT CC	Used in <i>FRG1</i> minigene construction
<i>FRG1</i> minigene-R	AAAGGATCCCTTGATCATTCTTCTTCTCC	Used in <i>FRG1</i> minigene construction
U1-F-1	CCATGATCACGAAGGTGGTTT	Used in RNA ChIP-qPCR to amplify U1snRNA
U1-R-1	ATGCAGTCGAGTTTCCCACAT	Used in RNA ChIP-qPCR to amplify U1snRNA
U2-F	TCCCAGGGCGAGGCTTATCCATT	Used in RNA ChIP-qPCR to amplify U2snRNA
U2-R	GAACGCAGTCCCCACTACCACAAAT	Used in RNA ChIP-qPCR to amplify U2snRNA
U4-F	CTCGGCCTTTTGCTAAGAT	Used in RNA ChIP-qPCR to amplify U4snRNA
U4-R	TATCCATCTCCCTGCTCCA	Used in RNA ChIP-qPCR to amplify U4snRNA
U5-F	GATCATTTCTATAGTGTGTTACTAGA	Used in RNA ChIP-qPCR to amplify U5snRNA
U5-R	CAATACGGAGAGAAGAACGATC	Used in RNA ChIP-qPCR to amplify U5snRNA
U6-F	GCAGTATCGTAGCCAATGAGG	Used in RNA ChIP-qPCR to amplify U6snRNA
U6-R	CTGTCAAAAATTGCCAGTGCC	Used in RNA ChIP-qPCR to amplify U6snRNA

FRT Fw	GTTTTGACCTCCATAGAAGACAC	Used in PCR to check <i>FRG1</i> splicing and in qPCR to amplify spliced transcript (“spliced 1”)
FRT Rv	CTGATCAGCGGGTTTAAACGT	Used in PCR to check <i>FRG1</i> splicing and in qPCR to amplify spliced transcript (“spliced 2”)
R-juncEX2_EX1-FRG1	TCA GGG CGA TTC TGG AAT CAG	Used in qPCR to amplify spliced co-transcriptional <i>FRG1</i> transcripts (“spliced 1”)
F-uniqex1	TAGTCCTCCAGAGCAGTTTAC	Used in qPCR to amplify unspliced co-transcriptional <i>FRG1</i> transcripts (“spliced 1”)
FRG-in1-R	CTGTGGGCTTAAGACAGATAC	Used in qPCR to amplify unspliced co-transcriptional <i>FRG1</i> transcripts (“spliced 1”)
F-juncEX2-EX3-FRG1	GTCTTTCAAAAATGGGAAAATGGC	Used in qPCR to amplify spliced co-transcriptional <i>FRG1</i> transcripts (“spliced 2”)
FRG1_ex2 splicing_F	GAACAATGGGAACCAGTCTTTC	Used in qPCR to amplify unspliced co-transcriptional <i>FRG1</i> transcripts (“spliced 2”)
FRG-in2-R	TATGATTGACTGTTAACAGACTTTCT	Used in qPCR to amplify unspliced co-transcriptional <i>FRG1</i> transcripts (“spliced 2”)
F-uniq in1 BS	ACCACTCAGCCACATGCAG	Used in qPCR to amplify branch site sequence of <i>FRG1</i> intron 1. Used for U2 and U2AF65 RNA ChIP experiments.
R-uniq in1 BS	GGACATCAAAAACAGGACATGC	Used in qPCR to amplify branch site sequence of <i>FRG1</i> intron 1. Used for U2 and U2AF65 RNA ChIP experiments.

FRG1-in2gRNACheck-F	CCAGCACACATGTATAACTGAAG	Used in PCR for checking sgRNA efficient.
in2gRNACheck-R	GCTTAACTCCCTAACAAATATAATG	Used in PCR for checking sgRNA efficient.
FRT_Fw	GTTTTGACCTCCATAGAAGACAC	Used in qPCR for transcription inhibition by dCas9 in <i>FRG1</i> minigene experiment (“Upstream”).
FRG-EX1-R	ACTGCTCTGGAGGACTAGG	Used in qPCR for transcription inhibition by dCas9 in <i>FRG1</i> minigene experiment (“Upstream”).
FRG-in2near 3ss-F	CACAAGAAGTATCCTCATGGC	Used in qPCR for transcription inhibition by dCas9 in <i>FRG1</i> minigene experiment (“Downstream”).
FRT_Rv	CTGATCAGCGGGTTTAAACGT	Used in qPCR for transcription inhibition by dCas9 in <i>FRG1</i> minigene experiment (“Downstream”).
F-uniqex1	TAGTCCTCCAGAGCAGTTTAC	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (first 5’SS).
FRG-in1-R	CTGTGGGCTTAAGACAGATAC	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (first 5’SS).
F-uniqin1upsg	CAGAGAATGTTACAGAATCATAACG	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (negative control 1 intron 1 for sgRNA intron 2 or positive control for sgRNA intron 1).
R-uniqin1upsg	CTATACTTTTGCACAAGGTGAGA	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (negative control 1 intron 1 for sgRNA intron 2 or positive control for sgRNA intron 1).

FRG1-mid INTRON1-F	TGCGAACAAATCAGATCTCAATAGA	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (negative control 2 intron 1).
R-FRG1-mid INTRON1	AGTATCCTATAAAATTTGCATTTTAGTAGT	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (negative control 2 intron 1).
FRG1-JUNCTION-WT-F	CAATGGGAACCAAGTCTTTCAAATG	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (second 5'SS WT).
FRG1-JUNCTION-MUT-F	CAATGGGAACCAAGTCTTTCAAATA	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (second 5'SS MUT).
FRG-in2-R	TATGATTGACTGTAAACAGACTTTCT	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (second 5'SS).
FRG1-middle intron2-F	CAGTAAGGACCAATGGGCAC	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (negative control 3 intron 2).
R-FRG1-middle intron2	CTTAGAAAACACTGCTGAGTTCC	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (negative control 3 intron 2).
F-FRGIN2-near-sg	GACTTAGATAGTACTAATAATAACAACA	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (positive control for sgRNA intron 2).
R-FRGIN2-near-sg	GCAATAGTTTTAAGACCCTCTTTC	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (positive control for sgRNA intron 2).
PLOD1_5ss_up	GAGGAGATGGAGCACTTTGG	Used in PCR to check <i>PLOD1</i> splicing
PLOD1_splice_R	GAGGGCTGCTCATCAGGC	Used in PCR to check <i>PLOD1</i> splicing
YBX1-ex2-F	CAACGAAGGTTTTGGGAACAG	Used in PCR to check <i>YBX1</i> splicing

YBX1_splice_R	CACAGTCTCTCCATCTCCTAC	Used in PCR to check <i>YBX1</i> splicing
F_PREPex7	TACAGCAGGAATCCAGTGGC	Used in PCR to check <i>PREP</i> splicing
R_PREPex10	TGGAATCTTCGTACCATCCTTG	Used in PCR to check <i>PREP</i> splicing
AKIRIN2_ex1_F	GTATCTCCGAATGGAGCCATC	Used in PCR to check <i>AKIRIN2</i> splicing
AKIRIN2_ex4_R	CATTATTTGATCATGCGTAAACTCA	Used in PCR to check <i>AKIRIN2</i> splicing
HNRNPC_ex1_F	ACGAAGACTGAGCGTTGTG	Used in PCR to check <i>hnRNPC</i> splicing
HNRNPC_ex4_R	CGCTGCAGATCGTTTCACAC	Used in PCR to check <i>hnRNPC</i> splicing
PLOD1_5ss_up	GAGGAGATGGAGCACTTTGG	Used in qPCR for CRISPR interference protocol to amplify <i>PLOD1</i> regions (first 5'SS).
PLOD1_5ss_up-R	AGAAGACCCCAGACAGTGAG	Used in qPCR for CRISPR interference protocol to amplify <i>PLOD1</i> regions (first 5'SS).
PLOD1_neg.cont1-F	CACTGTACTTAAAGGCAACATTAC	Used in qPCR for CRISPR interference protocol to amplify <i>PLOD1</i> regions (negative control 1 intron 1).
PLOD1_neg.cont1-R	GAGGTGGGTTGGGGCTTG	Used in qPCR for CRISPR interference protocol to amplify <i>PLOD1</i> regions (negative control 1 intron 1).
PLOD1_5ss_down-F	CAAATTCCTGCTGGAGTACATTG	Used in qPCR for CRISPR interference protocol to amplify <i>PLOD1</i> regions (second 5'SS).
PLOD1_5ss_down-R	CCCAGCCACTCCACTGAC	Used in qPCR for CRISPR interference protocol to amplify <i>PLOD1</i> regions (second 5'SS).

PLOD1_neg.cont3-F	AGTACGGGTGGAGGAACATC	Used in qPCR for CRISPR interference protocol to amplify <i>PLOD1</i> regions (negative control 2 intron 2).
PLOD1_neg.cont3-R	CACACGCTACTAGATGGAGG	Used in qPCR for CRISPR interference protocol to amplify <i>PLOD1</i> regions (negative control 2 intron 2).
PLOD1_pos.cont-F	GCCCTGCTTCGTCCGAAG	Used in qPCR for CRISPR interference protocol to amplify <i>PLOD1</i> regions (positive control).
PLOD1_pos.cont-R	GCATTCAAGGGATGAATGACAAC	Used in qPCR for CRISPR interference protocol to amplify <i>PLOD1</i> regions (positive control).
YBX1_5ss_up-F	GGAACGGATATGGTTTCATCAAC	Used in qPCR for CRISPR interference protocol to amplify <i>YBX1</i> regions (first 5'SS).
YBX1_5ss_up-R	CGCCTTTCAGAACAGAGCTG	Used in qPCR for CRISPR interference protocol to amplify <i>YBX1</i> regions (first 5'SS).
YBX1_neg.cont1-F	GTGTCAGACTGTGCAGGTG	Used in qPCR for CRISPR interference protocol to amplify <i>YBX1</i> regions (negative control 1 intron 1).
YBX1_neg.cont1-R	CAAGCTGTCAAGTTCCTATGG	Used in qPCR for CRISPR interference protocol to amplify <i>YBX1</i> regions (negative control 1 intron 1).
YBX1_5ss_down-F	CCAAGGAAGATGTATTTGTACAC	Used in qPCR for CRISPR interference protocol to amplify <i>YBX1</i> regions (second 5'SS).
YBX1_5ss_down-R	GCTGAGAACATATCTAACCTTTTC	Used in qPCR for CRISPR interference protocol to amplify <i>YBX1</i> regions (second 5'SS).
YBX1_neg.cont2-F	CTGATGAGTACTGCATAGTGAAC	Used in qPCR for CRISPR interference protocol to amplify <i>YBX1</i> regions (negative control 2 intron 2).



YBX1_neg.cont2-R	CACTTGGCAGTGGTTTACATTAG	Used in qPCR for CRISPR interference protocol to amplify <i>YBX1</i> regions (negative control 2 intron 2).
YBX1_pos.cnt-2 F	GTATTTGATGACAAGGAGGAAGC	Used in qPCR for CRISPR interference protocol to amplify <i>YBX1</i> regions (positive control).
YBX1_pos.cnt-2 R	AACATTTTGTCTGAAGTAGTCCTG	Used in qPCR for CRISPR interference protocol to amplify <i>YBX1</i> regions (positive control).
F_junc1_PREP	GTA CTGTTCCTGAGCATGAG	Used in qPCR for CRISPR interference protocol to amplify <i>PREP</i> regions (first 5'SS).
R_junc1_PREP	ACTAGAGAATGAGAGACGCAC	Used in qPCR for CRISPR interference protocol to amplify <i>PREP</i> regions (first 5'SS).
F-mid1_new2_PREP	TCTTCTGCACCTCATCCAG	Used in qPCR for CRISPR interference protocol to amplify <i>PREP</i> regions (negative control 1 intron 1).
R-mid1_new2_PREP	GACTGGTGGGTTGAGGATC	Used in qPCR for CRISPR interference protocol to amplify <i>PREP</i> regions (negative control 1 intron 1).
F_junc2_PREP	AAGGACACTGAAATCTTCTATCAG	Used in qPCR for CRISPR interference protocol to amplify <i>PREP</i> regions (second 5'SS).
R_junc2_PREP	CATAGCATTATACTTCCATTTCCC	Used in qPCR for CRISPR interference protocol to amplify <i>PREP</i> regions (second 5'SS).
F_mid2_PREP	AACCTGGAGTACAGCAGCAG	Used in qPCR for CRISPR interference protocol to amplify <i>PREP</i> regions (negative control 2 intron 2).
R_mid2_PREP	ACTTCTGTACCCAGTGAAATTTG	Used in qPCR for CRISPR interference protocol to amplify <i>PREP</i> regions (negative control 2 intron 2).

F_nSG_PREP	GACATTTGATAACTCTGGCAGG	Used in qPCR for CRISPR interference protocol to amplify <i>PREP</i> regions (positive control).
R_nSG_PREP	GTAAGTCATAAATGGCTTGGGC	Used in qPCR for CRISPR interference protocol to amplify <i>PREP</i> regions (positive control).
F_junc1_Akir	CTCACCACAGGTGGGACC	Used in qPCR for CRISPR interference protocol to amplify <i>AKIRIN2</i> regions (first 5'SS).
R_junc1_Akir	TGCTAAGAACAAGAACCACACAGTC	Used in qPCR for CRISPR interference protocol to amplify <i>AKIRIN2</i> regions (first 5'SS).
AKIRIN2_int1F	TGCCCAGTTGTGAGTATCTTTC	Used in qPCR for CRISPR interference protocol to amplify <i>AKIRIN2</i> regions (negative control 1 intron 1).
AKIRIN2_int1R	CAACTATTCAAGAGGCCCAAAC	Used in qPCR for CRISPR interference protocol to amplify <i>AKIRIN2</i> regions (negative control 1 intron 1).
AKIRIN2_ex2int2F	ACCAGCTTCACCAGGTAATAAC	Used in qPCR for CRISPR interference protocol to amplify <i>AKIRIN2</i> regions (second 5'SS).
AKIRIN2_ex2int2R	GAGGAGATACAGTAGCTTAAATGAC	Used in qPCR for CRISPR interference protocol to amplify <i>AKIRIN2</i> regions (second 5'SS).
AKIRIN2_int2F3	GTACCTTGTCATGACTGAACAC	Used in qPCR for CRISPR interference protocol to amplify <i>AKIRIN2</i> regions (negative control 2 intron 2).
AKIRIN2_int2R3	ATAAGACAAGTGTGTGAGGCAG	Used in qPCR for CRISPR interference protocol to amplify <i>AKIRIN2</i> regions (negative control 2 intron 2).
AKIRIN2int2_seq_F	AAATCAAAGACCATAACATAGTC	Used in qPCR for CRISPR interference protocol to amplify <i>AKIRIN2</i> regions (positive control).

R near guide Akir	CAATGGGCATGGCAGTATTTAG	Used in qPCR for CRISPR interference protocol to amplify <i>AKIRIN2</i> regions (positive control).
Fjunc1_HNRNPC	CCCCTTCTTGTAAGTGGAG	Used in qPCR for CRISPR interference protocol to amplify <i>hnRNPC</i> regions (first 5'SS).
HNRNPC_int1R	ACAAGCAGAATAAATGAGGGCC	Used in qPCR for CRISPR interference protocol to amplify <i>hnRNPC</i> regions (first 5'SS).
HNRNPC_int1F	GAATGGCTGTGCGAAACAAGC	Used in qPCR for CRISPR interference protocol to amplify <i>hnRNPC</i> regions (negative control 1 intron 1).
HNRNPC_int1R2	AACTCCTAGGCAAACCTACTCC	Used in qPCR for CRISPR interference protocol to amplify <i>hnRNPC</i> regions (negative control 1 intron 1).
HNRNPC_ex2int2F	TTTTGATCTTCAGCTACAGTAAG	Used in qPCR for CRISPR interference protocol to amplify <i>hnRNPC</i> regions (second 5'SS).
HNRNPC_int2R4	GTGTCATTATCATCATCATCATC	Used in qPCR for CRISPR interference protocol to amplify <i>hnRNPC</i> regions (second 5'SS).
HNRNPC_int2F3	CTGAAAGCCATCTTCCTCTCTG	Used in qPCR for CRISPR interference protocol to amplify <i>hnRNPC</i> regions (negative control 2 intron 2).
HNRNPC_int2R3	CTGGGCATCCATGTTGCTG	Used in qPCR for CRISPR interference protocol to amplify <i>hnRNPC</i> regions (negative control 2 intron 2).
F_nSG3_HNRNPC	AAGAGTCAAACCATAGGAGATAC	Used in qPCR for CRISPR interference protocol to amplify <i>hnRNPC</i> regions (positive control).
R_nSG3_HNRNPC	ATTTCCTGCTTTGTGAGGTC	Used in qPCR for CRISPR interference protocol to amplify <i>hnRNPC</i> regions (positive control).

FRG_mutx2_R	GAAGTTTTATAACAATAACAGCTCTC	Used in qPCR for CRISPR interference protocol to amplify <i>FRG1</i> minigene regions (second 5'SS MUTx2).
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