



Supplemental Figure S5. Complementary sequence analysis in introns flanking either circularized or non-circularized exons.

**(A)(B)** Competition analysis of RNA pairs from randomly selected non-circularized-exon flanking introns in both alternative 5' (A) and 3' (B) back-splicing loci. Note that only about 20% of randomly selected intron pairs contain the potential paired complementary sequences for competition. **\*\**p* value < 0.01**, Fisher exact test, compared with corresponding sample in Figs. 3A and 3B.

**(C)** The competition of RNA pairs (red dashed arc lines) flanking proximal (top panel) or distal (bottom panel) back-splice sites possibly leads to alternative 5' back-splice site selection (red arc lines) in circRNAs from the human *RBM23* locus. Black bars, complementary sequences.

**(D)** Sequence analysis of upstream and downstream complementary sequences in human *RBM23* circRNA flanking introns. Note that the core regions (in grey shadow) of these upstream and downstream complementary sequences are similar to each other (up to over 70 % identity).