

## Supplementary figure legends

**Figure S1.** The interaction between labeled SibC and unlabeled *ibsC* mRNA. The RNase V1 cleavage levels in Fig. 6, lanes 1 and 3 are denoted on the secondary structure model of SibC by the thickness of the arrows.

**Figure S2.** The interaction between labeled SibC and unlabeled *ibsC* mRNA. The RNase T1 cleavage levels in Fig. 6, lanes 5 and 7 are denoted as in Fig. S1.

**Figure S3.** The interaction between labeled SibC and unlabeled *ibsC* mRNA. The lead(II) cleavage levels in Fig. 6, lanes 9 and 11 are denoted as in Fig. S1.

**Figure S4.** The interaction between labeled SibC and unlabeled *ibsC* mRNA. The RNase III cleavage levels in Fig. 6, lanes 13 and 15 are denoted as in Fig. S1.

**Figure S5.** The interaction between labeled *ibsC* mRNA and unlabeled SibC RNA. The RNase V1 cleavage levels in Fig. 7, lanes 1 and 3 are denoted on the secondary structure model of *ibsC* mRNA by the thickness of the arrows.

**Figure S6.** The interaction between labeled *ibsC* mRNA and unlabeled SibC RNA. The RNase T1 cleavage levels in Fig. 7, lanes 5 and 7 are denoted as in Fig. S5.

**Figure S7.** The interaction between labeled *ibsC* mRNA and unlabeled SibC RNA. The lead(II) cleavage levels in Fig. 7, lanes 9 and 11 are denoted as in Fig. S5.

**Figure S8.** The interaction between labeled *ibsC* mRNA and unlabeled SibC RNA. The RNase III cleavage levels in Fig. 7, lanes 13 and 15 are denoted as in Fig. S5.

**Figure S9.** Time course of the interactions between SibC and *ibsC* mRNA. Structural probing data in Fig. 7 were compared for zero time, 1 sec, and 360 sec. The RNase V1 cleavage levels are denoted on the secondary structure model of *ibsC* mRNA by the thickness of the arrows

**Figure S10.** Comparison of five Sib RNA sequences. (A) A comparison of sequences in all five Sib RNAs. (B) A pair-wise comparison of two Sib RNAs among five Sib RNAs. The similarities between them are shown in the left.

# SibC

## RNase V1

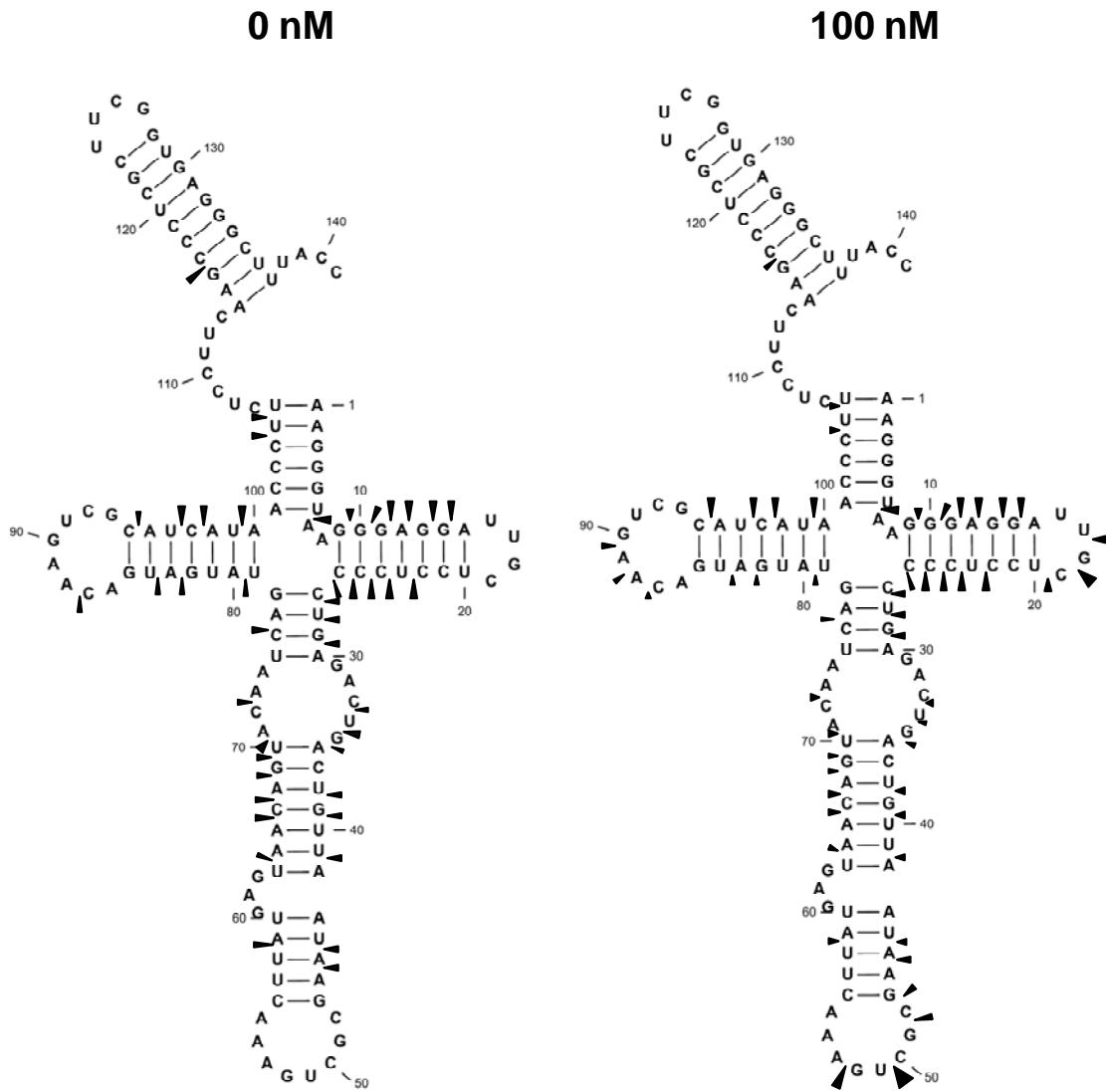


Fig. S1 (Han et al.)

# SibC

## RNase T1

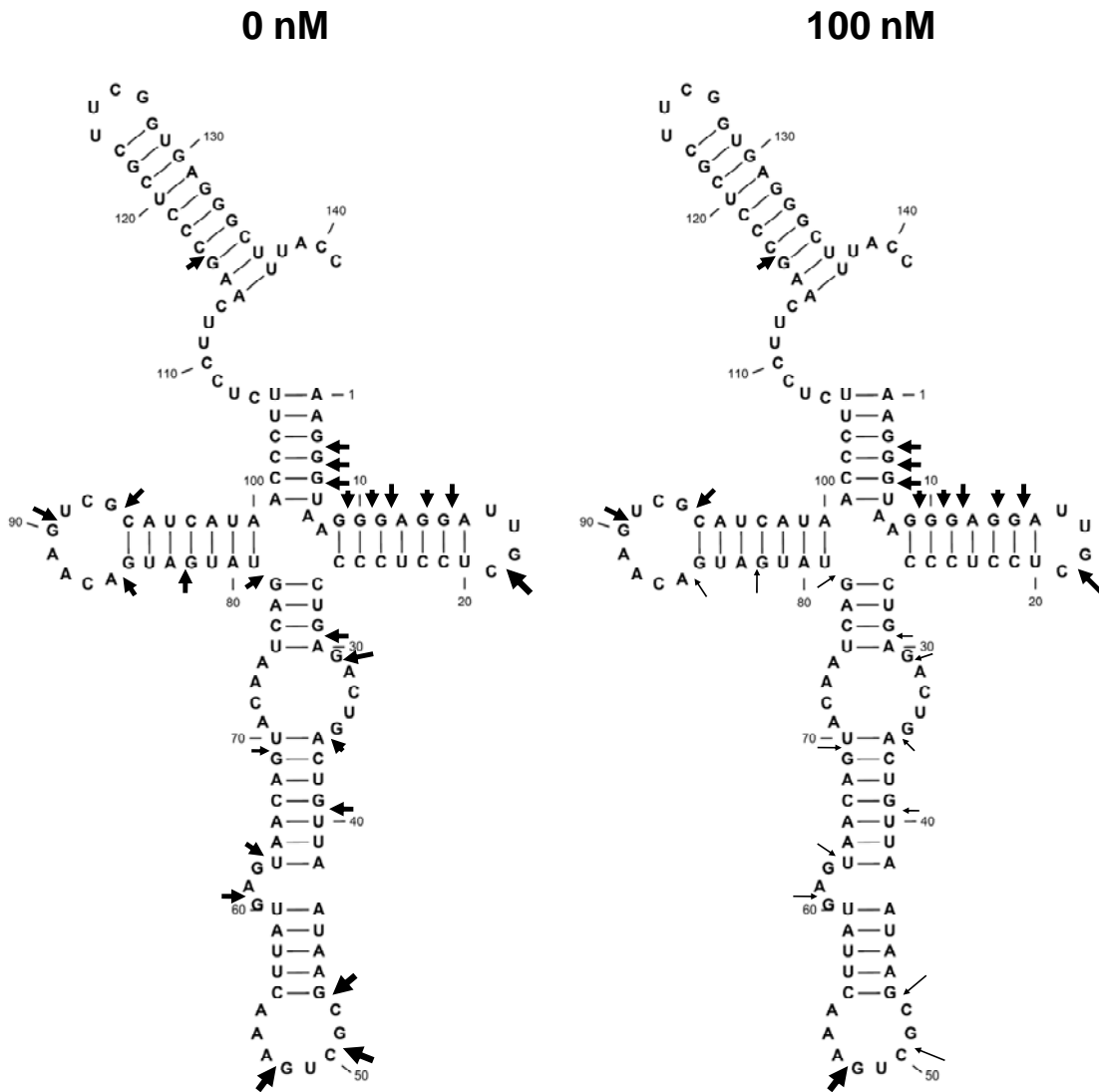


Fig. S2 (Han et al.)

SibC

Pb(II)

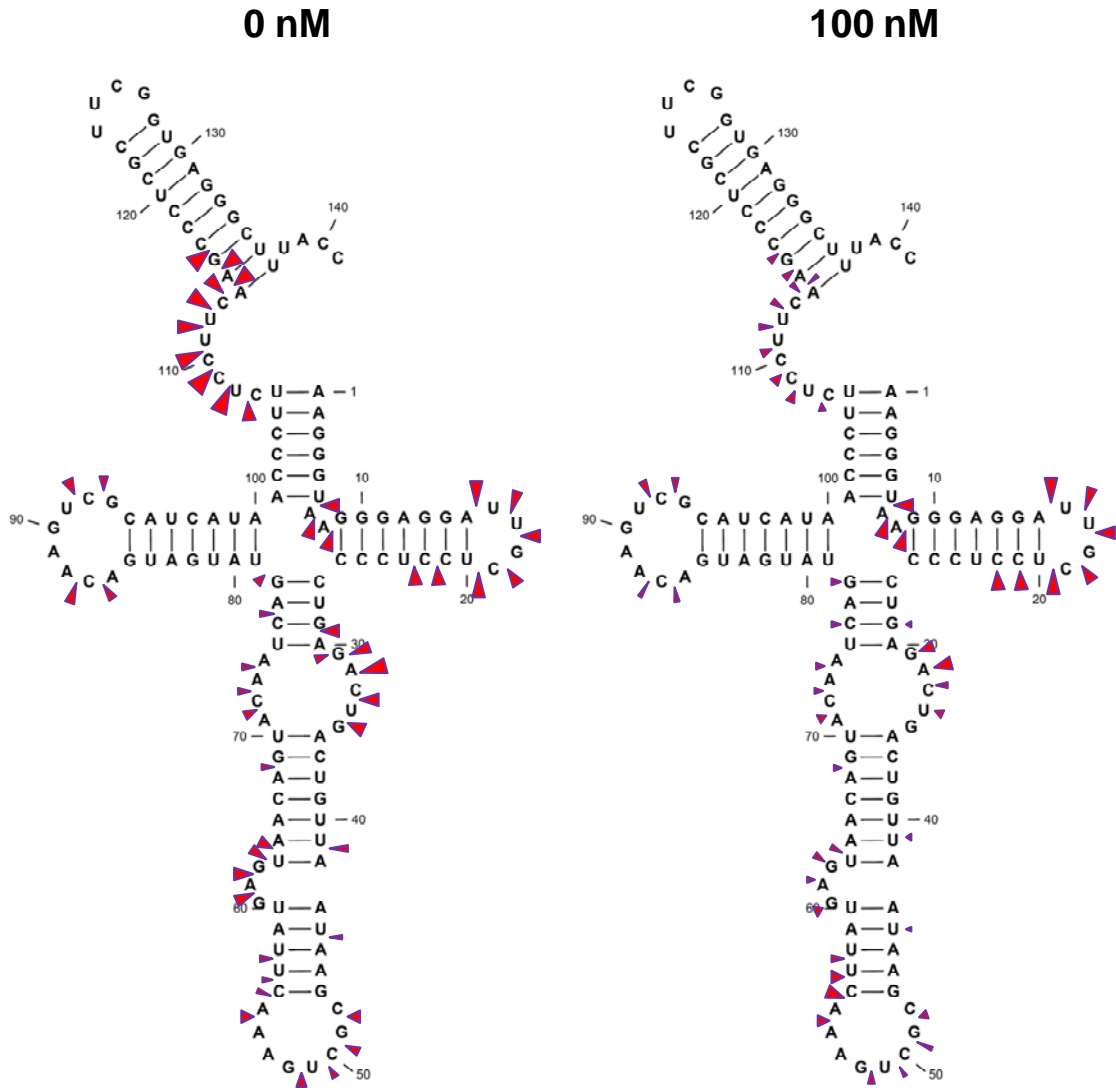


Fig. S3 (Han et al.)

# SibC RNase III

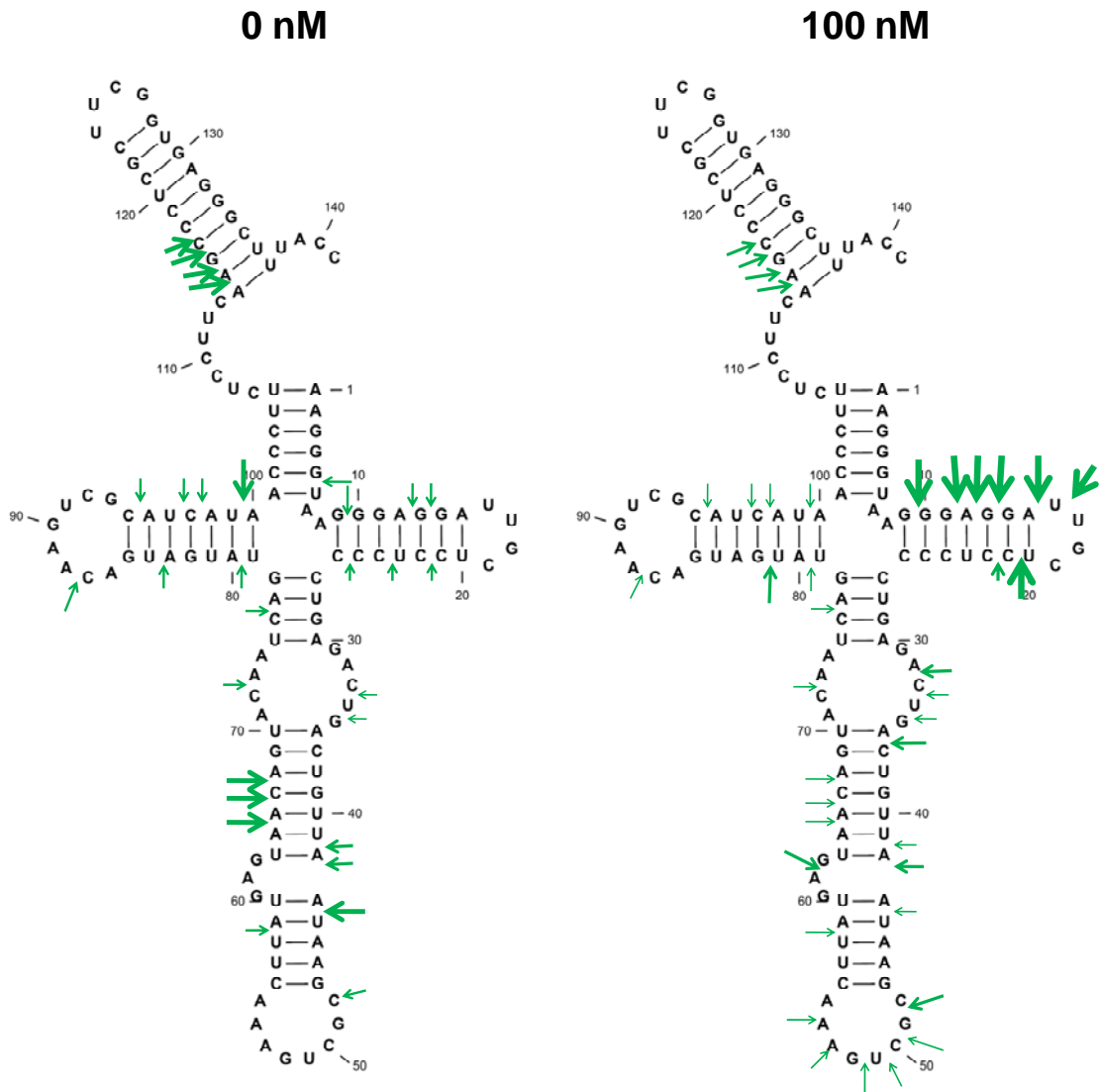


Fig. S4 (Han et al.)





ibsC

Pb(II)

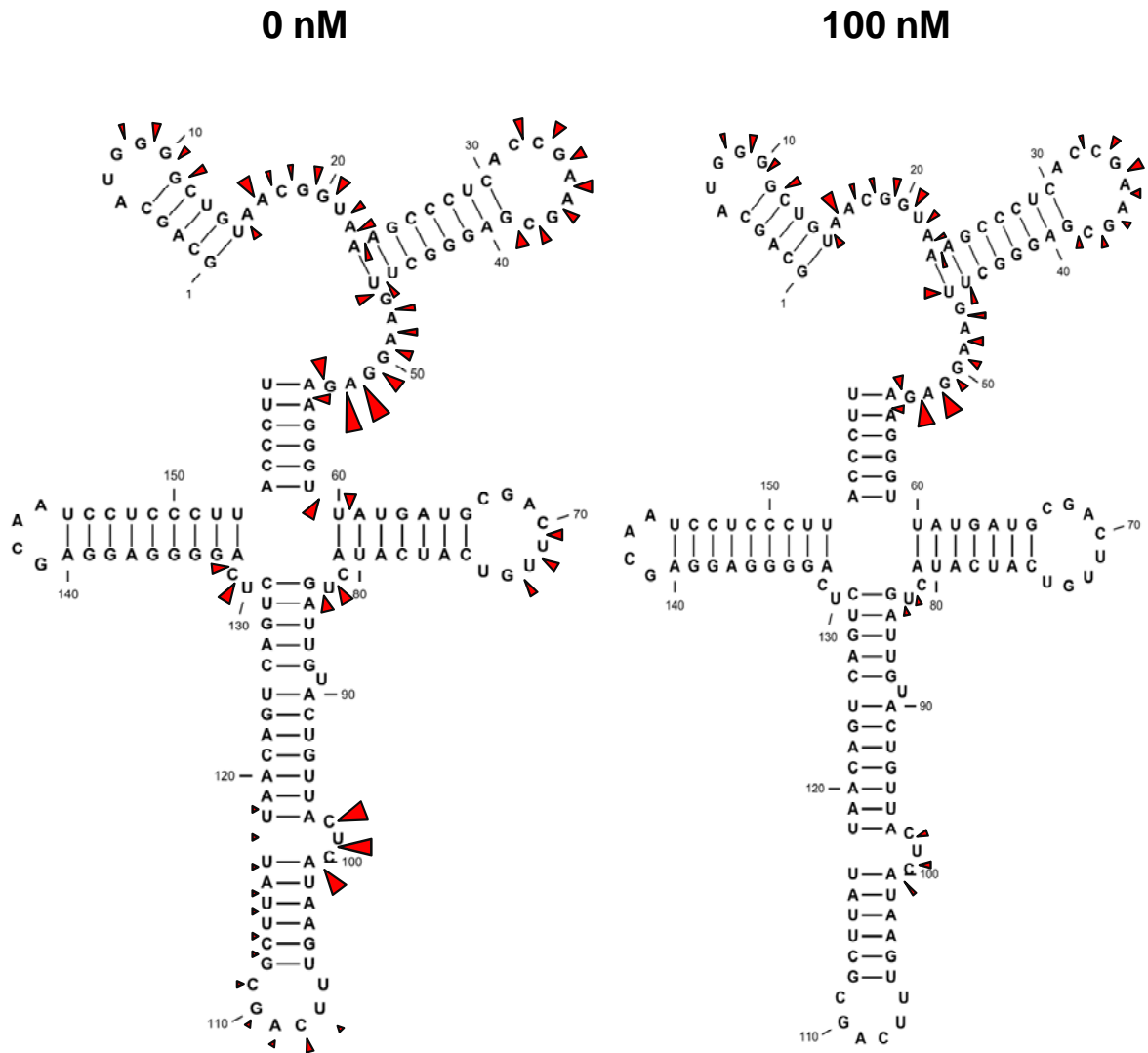


Fig. S7 (Han et al.)



# ibsC RNase III

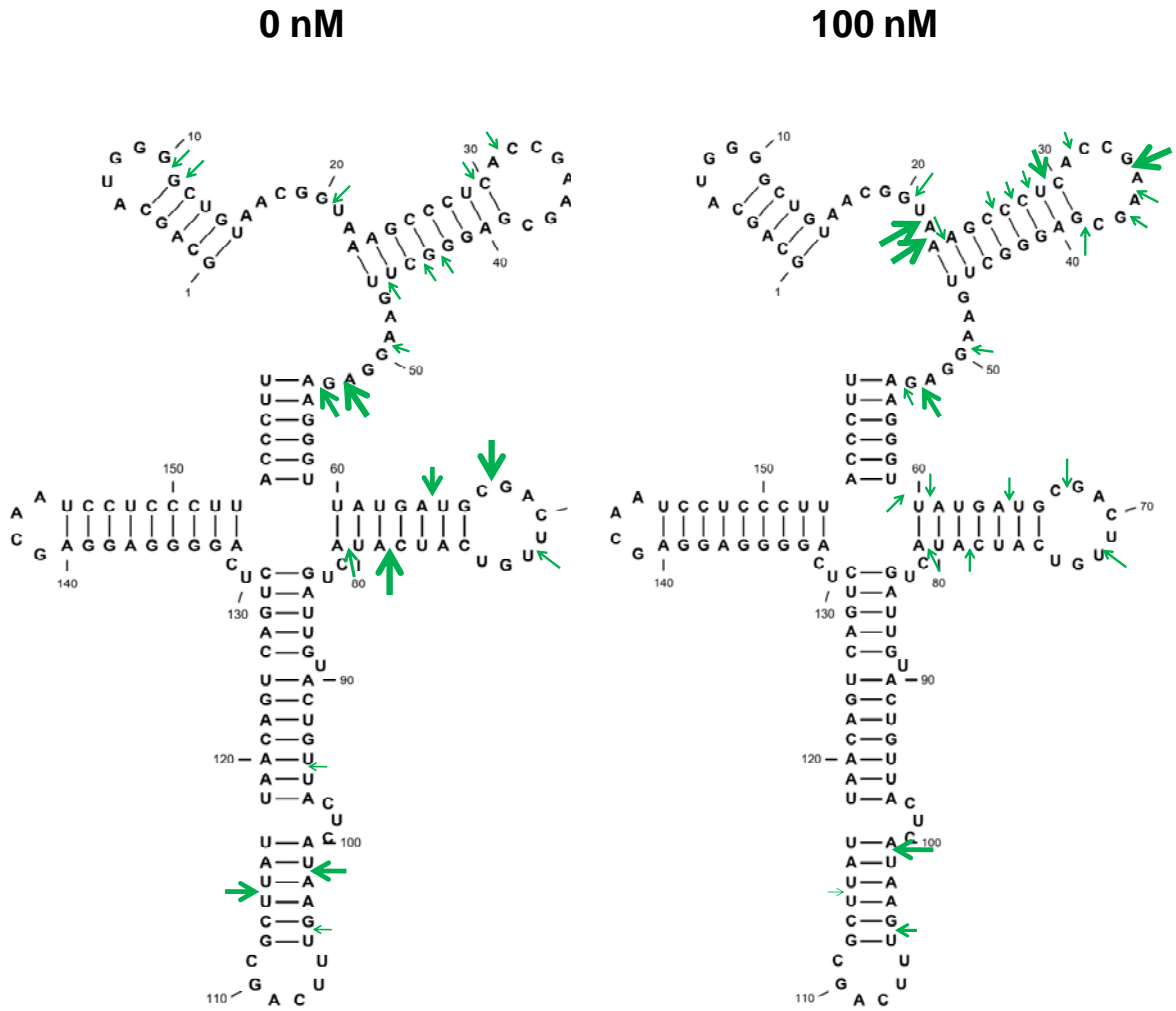


Fig. S8 (Han et al.)

ibsC  
RNase V1

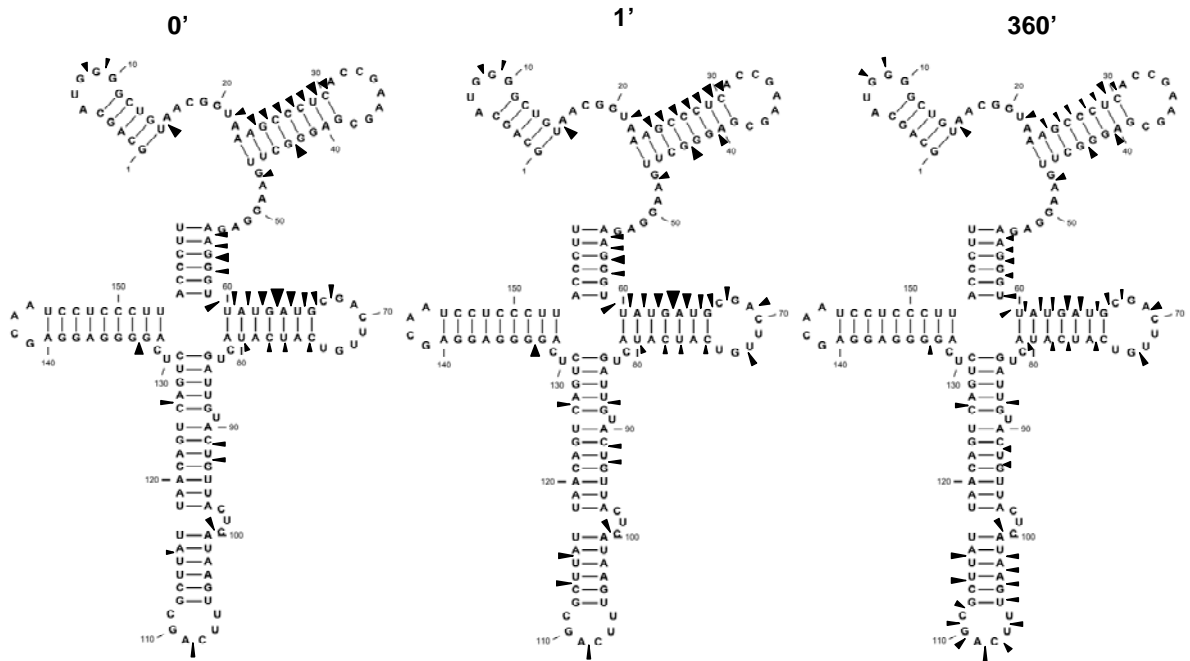


Fig. S9 (Han et al.)

**A**

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                                     TRD1
sibA  --AGGGTTAGGGAGAGGTTTCCCCCTCCCCCTGGTG--TTCTTAGTAAGCCTGGAAGCTA 56
sibB  ---AGGGTAGAGCGGGGTTTCCCCCGCC--CTGGTA--GTCTTAGTAAGCGGGGAAGCTT 53
sibC  --AAGGGTAAGGGAGGATTGCTCTCCCCCTGAGACTGACTGTTAATAAGCGTGAAACTT 58
sibD  ACAAGGGTGAGGGAGGATTTCTCC--CCCCTCTGATTGGCTGTTAATAAGCTGCGAAACTT 59
sibE  ACAAGGGTAAGGGAGGATTTCTCCCCCT--CTGATGAGTTGTTAGTAAGTCGGAAACTT 59
      * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                                     TRD2
sibA  ATCACTAAGAGTATCACCAGTATGATGACGTGCTTCATCATAACCCCTTTCCTTATTAATA 116
sibB  ATGACTAAGAG--CACCACGATGATGAGTAGCTTCATCATGACCCCTTTCCTTATTTATG 110
sibC  ATGAGTAACAGTACAATCAGTATGATGACAAGTCGCATCATAACCCCTT--CTCCTTCAAG 116
sibD  ACGAGTAACAACAACAATCAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTCTGTAG 119
sibE  AACAGTAACAACAACAACAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTATACAAG 119
      * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

sibA  GCCCTCTTCTCGGGAGAGGCTTTTCCC 143
sibB  GCCC-CTTCTCGGGAGGGGCTTTTCCC 136
sibC  --CCCTCGCTTCGGTGAGGGCTTTTACC 141
sibD  GCCCCTTCTTTCGGGAGGGGCTTTTCCC 146
sibE  GCCC-CTTCTTCGGGAGGGGCTTTTCCC 145
      * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
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**B**

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                                     TRD1                                     TRD2
90% sibD  ACAAGGTTAGGGAGGATTTCTCCCCCTCTGATGAGTTGTTAGTAAGTCGGAAACTTACAGTAACAACAACAATCAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTCCC
sibE  ACAAGGTTAGGGAGGATTTCTCCCCCTCTGATGAGTTGTTAGTAAGTCGGAAACTTACAGTAACAACAACAATCAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTCCC
82% sibC  --AAGGTTAGGGAGGATTTCTCCCCCTGAGACTGACTGTTAATAAGCGCTGAAACTTATGATGACAGTACCAATCAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTTACC
sibD  ACAAGGTTAGGGAGGATTTCTCCCCCTCTGATGAGTTGTTAGTAAGTCGGAAACTTACAGTAACAACAACAATCAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTTCCC
82% sibA  AAGGTTAGGGAGGATTTCTCCCCCTCCCCCTGATGAGTTGTTAGTAAGTCGGAAACTTACAGTAACAACAACAATCAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTTCCC
sibB  --AAGGTTAGGGAGGATTTCTCCCCCT--CTGGTAGTCTTAGTAAGCGGGGAGCTTATGACTAAGAG--CACCACGATGATGAGTACCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTTCCC
81% sibA  ---AAGGTTAGGGAGGATTTCTCCCCCTCCCCCTGATGAGTTGTTAGTAAGTCGGAAACTTACAGTAACAACAACAATCAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTTCCC
sibE  ACAAGGTTAGGGAGGATTTCTCCCCCTCTGATGAGTTGTTAGTAAGTCGGAAACTTACAGTAACAACAACAATCAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTTCCC
80% sibB  ---AAGGTTAGGGAGGATTTCTCCCCCT--CTGGTAG--TCTTAGTAAGCGGGGAGCTTATGACTAAGAGCACCAGCA--TATGATGAGTACCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTTCCC
sibE  ACAAGGTTAGGGAGGATTTCTCCCCCTCTGATGAGTTGTTAGTAAGTCGGAAACTTACAGTAACAACAACAATCAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTTCCC
79% sibB  ---AAGGTTAGGGAGGATTTCTCCCCCT--CTGGTAGTCT--TAGTAAGCGGGGAGCTTATGACTAAGAGCAC--CAGTATGATGAGTACCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTTCCC
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sibC  AAGGTTAGGGAGGATTTCTCCCCCTGAGACTGACTGTTAATAAGCGCTGAAACTTATGATGACAGTACCAATCAGTATGATGACGAGCTTCATCATAACCCCTTTCCTTCTGTAAGGCCCTTCTTCGGGAGGGGCTTTTACC
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Fig. S10 (Han et al.)