

Supplementary Table 2: RNA constructs used in this study

#	RNA construct	Sequence (5'-3')	results shown in Fig.
1	Screening of ATP analogs, 31mer	GAGACGAGACCAUAUGGCUGUUCGCCAUUU	2A
2	Screening of ATP analogs, 9mer FI labeled	FI-GGUCUCGUC	2A
3	Screening of ATP analogs, 9mer unlabeled	GGUCUCGUC	2A
4	NMR titration/crystallization hp-HP92	GGGAAGGGUUUCGACCCUCCCAUAUGGCUGUUCGCCAUUU	2B-I,3A-E
5	NMR titration ss-HP92	GGACCCUCCCAUAUGGCUGUUCGCCAUUU	2C,2E,2F
6	crystallization ds-HP92	GGGAACCCUCCCAUAUGGCUGUUCGCCAUUUUCGGAAGGGUU	4A-D
7	crystallization ss-HP92	GGACAUUAUGGCUGUUCGCCAUUU	5A-E
8	ATPase/helicase activity, 8 nt 5' overhang	GAAGAAGAGACGAGACCAUAUGGCUGUUCGCCAUUU	6A-E
9	ATPase/helicase activity, 5 nt 5' overhang	GAAGAGACGAGACCAUAUGGCUGUUCGCCAUUU	6A-D
-	ATPase/helicase activity, 2 nt 5' overhang	same as #1	6A-E
10	ATPase/helicase activity, 0 nt 5' overhang	GACGAGACCAUAUGGCUGUUCGCCAUUU	6A-D
-	ATPase/helicase activity, 9mer FI labeled	same as #2	6A-E
-	ATPase/helicase activity, 9mer unlabeled	same as #3	6A-E
11	HP92 for PRE measurements	UAUGGCUGUUCGCCAU-4TU-U	7A
12	hp-HP92 for PRE measurements	GGGAAGGGU-4TU-CUCACCCUCCCAUAUGGCUGUUCGCCAUUU	7B-C

4TU and FI indicate a 4-thioruridine residue and a 5' fluorescein label, respectively.