

PDB ID	Description	Biological Family	Excluding reason
1DQF	5S rRNA	Ribosomal RNA	
1MSY	Sarcin/Ricin domain from 23s RNA	Ribosomal RNA	
1Q93	Sarcin/Ricin domain mutant from 28s RNA	Ribosomal RNA	
1T0D	Ribosomal decoding site	Ribosomal RNA	
1T0E	Ribosomal decoding site	Ribosomal RNA	
2OE6	Ribosomal decoding A site	Ribosomal RNA	
357D	5S rRNA	Ribosomal RNA	
1SDR	Shine-Dalgarno region of 16S rRNA	Ribosomal RNA	Too small
353D	5S rRNA	Ribosomal RNA	Too small
361D	5S rRNA	Ribosomal RNA	Too small
1MME	Hammerhead ribozyme	Ribozymes	
1NUJ	Leadzyme	Ribozymes	
1NBS	Ribonuclease P RNA	Ribozymes	4-way or more
1U9S	Ribonuclease P RNA	Ribozymes	4-way or more
1X9C	Hairpin Ribozyme	Ribozymes	4-way or more
1X9K	Hairpin Ribozyme	Ribozymes	4-way or more
1Y0Q	Group I ribozyme	Ribozymes	4-way or more
2A2E	Ribonuclease P RNA	Ribozymes	4-way or more
2A64	Ribonuclease P RNA	Ribozymes	4-way or more
1X8W	Tetrahymena ribozyme	Ribozymes	Unpaired ends
1YKQ	Diels-Alder Ribozyme	Ribozymes	Unpaired ends
2H0S	glmS ribozyme	Ribozymes	Unpaired ends
1D4R	Human SRP helix 6	SRP RNAs	
1DUH	4.5s RNA	SRP RNAs	
1FIR	HIV reverse-transcription primer tRNA(Lys,3)	Transfer RNAs	4-way or more
1I9V	Phenylalanine tRNA	Transfer RNAs	4-way or more
1YFG	Yeast initiator tRNA	Transfer RNAs	4-way or more
2TRA	Yeast aspartic acid tRNA	Transfer RNAs	Too small
434D	acceptor stem of tRNA(Ala) from Escherichia coli	Transfer RNAs	Too small
1CSL	HIV-1 rev binding site	Viral RNAs	
1DUQ	HIV-1 rev binding site	Viral RNAs	
1JZV	Bulged RNA from the SL2 stem-loop of the HIV-1 psi-RNA	Viral RNAs	
1XJR	SARS virus genome stem-loop II motif (s2m)	Viral RNAs	
2NOK	IRES domain from hepatitis C virus	Viral RNAs	
397D	HIV-1 trans-activation response region RNA stem	Viral RNAs	
1KH6	RNA domain essential to HCV IRES-mediated translation initiation	Viral RNAs	4-way or more
1K9W	HIV-1 RNA dimerization initiation site	Viral RNAs	Too small
1L2X	Viral (beet western yellow virus) rna pseudoknot	Viral RNAs	Too small
2B8R	HIV-1 RNA dimerization initiation site	Viral RNAs	Too small
2IL9	Ribosomal Binding Domain of the IRES RNA	Viral RNAs	Unpaired ends
157D	RNA duplex	Other RNA	
1F1T	RNA duplex	Other RNA	
1I9X	snRNA	Other RNA	
1J9H	RNA nonamer	Other RNA	
1KD5	RNA duplex	Other RNA	
1KXK	Ai5gamma group II self-splicing intron	Other RNA	
1QBP	RNA duplex	Other RNA	
1SA9	RNA octamer	Other RNA	
1Z43	SRP19 RNA	Other RNA	
205D	RNA duplex	Other RNA	
255D	RNA duplex	Other RNA	
280D	RNA duplex	Other RNA	
333D	RNA octamer	Other RNA	
387D	RNA pseudoknot with 3d domain swapping (inhibit HIVRT)	Other RNA	
402D	RNA octamer	Other RNA	
405D	RNA duplex	Other RNA	
406D	RNA duplex	Other RNA	
409D	RNA octamer	Other RNA	
413D	RNA duplex	Other RNA	
1F27	RNA pseudoknot	Other RNA	Too small
1G2J	RNA duplex containing phenyl-ribonucleotides	Other RNA	Too small
1KFO	RNA duplex	Other RNA	Too small
1L3Z	RNA heptamer	Other RNA	Too small

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1MHK	26-nucleotide RNA containing a hook-turn	Other RNA	Too small
1P79	Bulged RNA tetraplex	Other RNA	Too small
1YZD	RNA duplex	Other RNA	Too small
259D	RNA octamer	Other RNA	Too small
2A0P	RNA octamer	Other RNA	Too small
2A05	RNA duplex	Other RNA	Too small
2G32	RNA octamer	Other RNA	Too small
2G3S	RNA octamer	Other RNA	Too small
2G91	RNA octamer	Other RNA	Too small
377D	Alternating A-RNA hexamer	Other RNA	Too small
433D	RNA duplex	Other RNA	Too small
438D	RNA nonamer	Other RNA	Too small
472D	Octamer RNA with G.G/U.U tandem wobble base pairs	Other RNA	Too small

Table ST1: **Reference Set.** The *reference set* contains 76 molecules of different sizes.