

Table 4. Base Pairs and Their Conformations Formed in RNA Motifs[†]

Motif	Basepairs	Conformations	Comments
Tetraloops ⁷⁻¹⁰	G:A	S	5'-GNRA-3': Hairpin loops
	U:G	fS	5'-UNCG-3': Hairpin loops
A platforms ^{13,63}	C:G	WC	5'-CUAAG/UAUG-3': Internal loops
	U:A	rH	
	A:A	pS	
	U:A	Wb	
E-loops ^{51,64-66}	A:A (A:C)	rS	5'-AGUA/GAA-3': Internal loops
	G(U:A) ^b	U:A rH and G:U pS*	
	A:G (A:A)	S	
K-turns ³	C:G	WC	5'-AG/CNNNG-3': Internal loops
	G:A	S	
Lonepair triloops ¹⁷	U:A	rH, WC	R1 LPTL(5'-UGNRA-3'): Hairpin loops
	C:A	rH, rWb	R2 LPTL (5'-UUYRA-3'): Hairpin loops
	C:G	WC, rWC	
	G:A	S, H	
H-turns ²⁴	G:A	S	5'-GA/UA-3': Multistem loops
	U:A	rH	
AA.AG@helix.ends ¹⁴	G:A (C:A)	S, WC, H*, rH, Sv ^c	G:A with G 3' and A 5' to helix
	A:A	S, Wb	
	G:A	WC	G:A with G 5' and A 3' to helix
Tandem GAs ¹⁵⁻¹⁶	G:A	S	5'-GA/GA-3': Internal and multistem loops
	A:A	S, rS	5'-GA/AA-3': Internal and multistem loops
	U:A	rH	5'-GA/UA-3': Internal loops
A-mediated interactions ^a	A:G	rS, rpS, fS, pfS	Unpaired As in long-range tertiary interactions
	C:Y	fS, pfS	

[†] N = {A, C, G, U}, R = {A, R}, and Y = {C, U}.

^a The A-mediated interactions include the A-minor motifs.²²⁻²³

^b The G(U:A) base triple with the U:A rS and G:U pS* conformations is sandwiched between A:A rS and A:G S.

^c Sv represents a S-like conformation with two bases vertically arranged. It may be an intermediate between G:A S and G:A rS.