

**Table S3. Related to Figure 2; Secondary structure inventory for *COOLAIR* and rRNA demonstrates RHT is rare.**

<b>Motif class</b>	<b>Secondary structure motif</b>	<b>COOLAIR</b>	<b>rRNA</b>	
Stem-loop ( $N_{loop}$ )	(4) 'Tetra-loop'	12	2,090,699	
	(5) 'Penta-loop'	7	587,429	
	(6)	7	600,565	
	(7)	2	561,844	
	(8)	8	540,589	
	(9)	1	300,355	
	(12)	1	33,305	
	(13)	1	17,891	
Symmetric internal loop ( $N_5, N_3$ )	(1,1)	23	30,196	
	(2,2)	2	57,225	
	(3,3)	1	109,286	
	(4,4)	1	2,238	
	(5,5)	1	7,734	
	(8,8)	1	474	
5'-Asymmetric internal loop ( $N_5, N_3$ )	(1,0)	31	243,345	
	(2,0)	1	201,580	
	(2,1)	1	51,966	
	(3,0)	2	28,408	
	(3,1)	1	31,621	
	(4,0)	1	208	
	(4,1)	9	24,818	
	(4,2)	2	26,854	
	(4,3)	1	26,761	
	(5,3) (e.g., 23S Kink-turn 15)	1	178	
	(5,4)	1	2,048	
	(6,5)	1	27,907	
	(7,0)	1	416	
	3'-Asymmetric internal loop ( $N_5, N_3$ )	(0,1)	21	197,409
(0,2)		13	38,468	
(1,2)		14	70,146	
(0,3)		9	56,255	
(1,3)		7	28,772	
(2,3)		5	11,350	
(2,6)		2	1,129	
(2,7)		1	5	
(0,4)		2	808	
(1,4)		2	104	
(2,4)		1	27,571	
(3,4)		1	58,260	
(3,6)		1	28,829	
(4,5)		1	38,611	
(4,7)		1	15	
(0,5)		1	305	
(1,5)		1	27,991	
Multiway junction		3WJ	7	532
		4WJ	1	3,371
		5WJ	5	4,129
Right-hand turn ( $N_5, N_3$ ), $N_5 > 12$ , $N_5/N_3 \geq 4$	$13 \leq N_5 \leq 20$ ; $0 \leq N_3 \leq 4$	17 (12)	13	