

**Supplementary Table 1.** RNA tertiary interactions in cryo-EM structure of the full-length *Tetrahymena* ribozyme catalytic core and comparisons with other group I introns

<b>Region, Residue</b>	<b>Tertiary interactions</b>	<b>Other models with same interactions</b>	<b>Residues adopt different conformations in the cryo-EM structure</b>
J3/4, A104-U106	Minor groove interactions to P6	1X8W, 1U6B, 1Y0Q	G122 in 1U6B and A114 in 1Y0Q to C255 in cryo-EM
J5/5a, C124-G126, C197	Minor groove interactions to P5	1GID, 1HR2, 1X8W	A125 in 1HR2 to A125 in cryo-EM
TL, A152-A153	Minor groove interactions to P6a	1GID, 1HR2, 1X8W	
P14, A171	A-platform within a base triple	1GID, 1HR2, 1X8W	
Metal core, U168, A183-A184, A186, G188	Minor groove interactions to P4	1GID, 1HR2, 1X8W	A210 in 1GID and A210G in 1X8W to A210 in cryo-EM
J6/6a, A218	Minor groove interactions to P3	1X8W, 1U6B, 1Y0Q	A218 in 1GID and 1HR2 form an A-platform to A218 in cryo-EM
J6/7, U259-C262	Major groove interactions to P4, P7	1X8W, 1U6B, 1Y0Q	C260 and U259A in 1X8W to C260 and U259 in cryo-EM
J8/7, U300	Major groove interactions to P3	1X8W	U277C in 1X8W to U277 in cryo-EM
J8/7, A306	Major groove interactions to P7	1X8W, 1U6B, 1Y0Q	A306 in 1X8W to A306 in cryo-EM
P9, A324-A325, G327	Minor groove interactions to P5	1X8W, 1U6B, 1Y0Q	C209 in 1Y0Q to G327 in cryo-EM