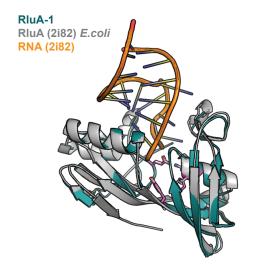
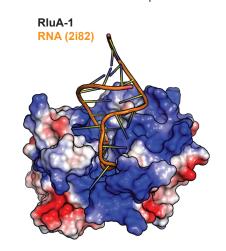


C RluA-1 model superimposed on E.coli RluA with RNA

**D** Electrostatic surface representation of RluA-1 and *E.coli* RluA with RNA





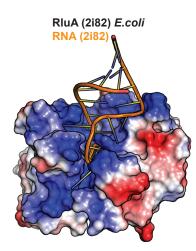


Figure S1. (A). Superimposition of RluA-2 model in magenta colour and *E. coli* RluC in grey. (B). Superimposition of models RluA-1 (teal), RluA-2 (magenta), *E. coli* RluC (dark grey) and *E. coli* RluA (light grey). Conserved DYI/LR residues are shown in stick representation. (C). Superimposition of RluA-1 model in teal colour and *E. coli* RluA in grey with bound RNA (orange). (D). Electrostatic surface representations of (left) model RluA-1 with RNA (orange) location from original *E. coli* RluA structure (right). Electrostatic surfaces represent positive surface charges in blue, neutral white and negative in red.