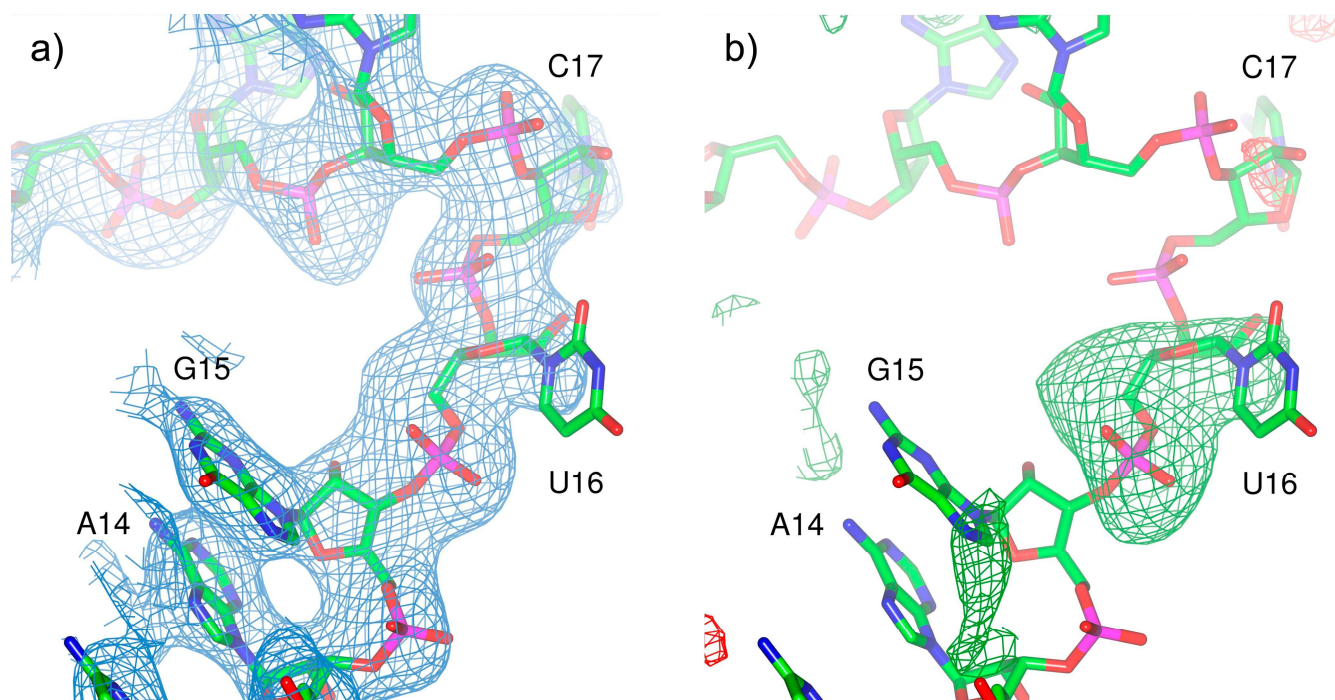
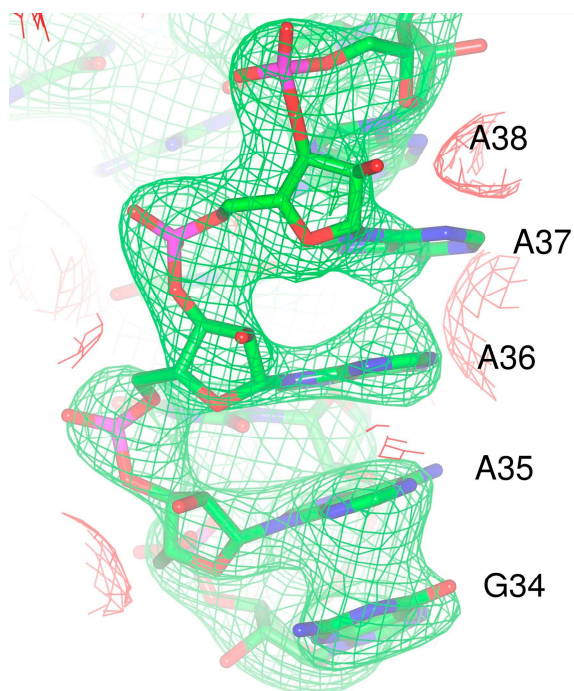


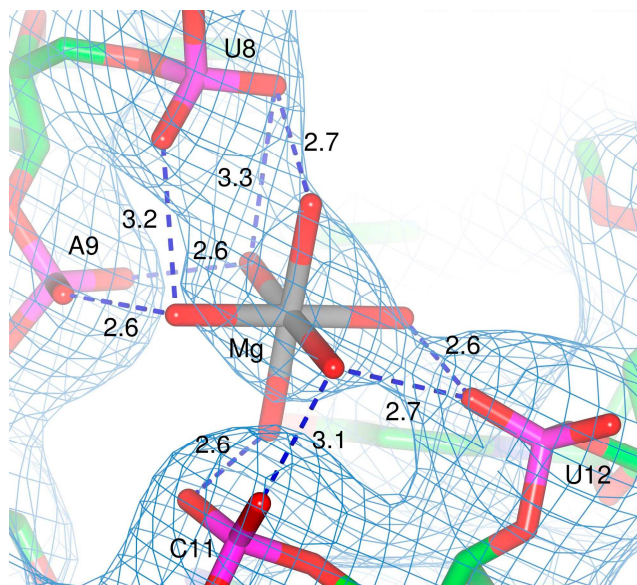
Supplementary information



Supplementary figure 1. D-loop conformation. The final refined model is overlaid with electron density maps. **(a)** The $2m|F_o|-D|F_c|$ map is contoured at 1σ . **(b)** The $m|F_o|-D|F_c|$ map calculated with U16 omitted is contoured at 3σ .



Supplementary figure 2. Conformation of the anticodon stem loop of tRNA. The $m|F_o|-D|F_c|$ map contoured at 2σ was calculated with nucleotides 28-42 omitted from the model



Supplementary figure 3. The coordination of the hydrated Mg^{2+} ion. The corresponding $2m|F_o|-D|F_c|$ electron density map is contoured at 1σ . The hydrogen bonds between the phosphate groups and the water molecules are depicted by dashed blue lines, along with the distances in Å.