

Description of Additional Supplementary Files

File name: Supplementary Movie 1

Description: An animation for the Figure 2d, created by rotating 360° along Y-axis, where cryo-EM density in mesh and model in stick style corresponds to RafH linker region residues, 111-124 (maroon), and a-SD region of 16S rRNA nucleotides, 1518-1522 (khaki), are shown.

File name: Supplementary Movie 2

Description: An animation for the Figure 3 bottom left panel created by rotating 360° along Y-axis, where cryo-EM density in mesh and model in stick style corresponds to RafH helix $\alpha 1$ R75 (maroon), with Bridge B2a;16S rRNA nucleotides, 1477-1478 (khaki) and 23S rRNA nucleotide A2137 (sky blue), are shown.

File name: Supplementary Movie 3

Description: An animation for the Figure 3 bottom right panel created by rotating 360° along Y-axis, where cryo-EM density in mesh and model in stick style corresponds to RafH helix $\alpha 1$ (maroon) and helix 23s rRNA h44 (khaki), are shown.

File name: Supplementary Movie 4

Description: An animation for the Figure 3 middle right panel created by rotating 360° along Y-axis, where cryo-EM density in mesh and model in stick style corresponds to RafH helix $\alpha 3$ W96 (maroon) and helix 23s rRNA G673 (khaki), are shown.

File name: Supplementary Movie 5

Description: An animation for the Figure 3 top right panel created by rotating 360° along Y-axis, where cryo-EM density in mesh and model in stick style corresponds to RafH helix $\alpha 2$ (maroon) and helix 23s rRNA C1382 and C1383 (khaki), are shown.

File name: Supplementary Movie 6

Description: An animation for the Figure 3 top left panel created by rotating 360° along Y-axis, where cryo- EM density in mesh and model in stick style corresponds to RafH amino acid residues from strands β 2, β 3, and β 4 (maroon) and 23s rRNA h31, U947 and G948 (khaki), are shown.