Supporting Information

Qin and Zhou 10.1073/pnas.0900291106

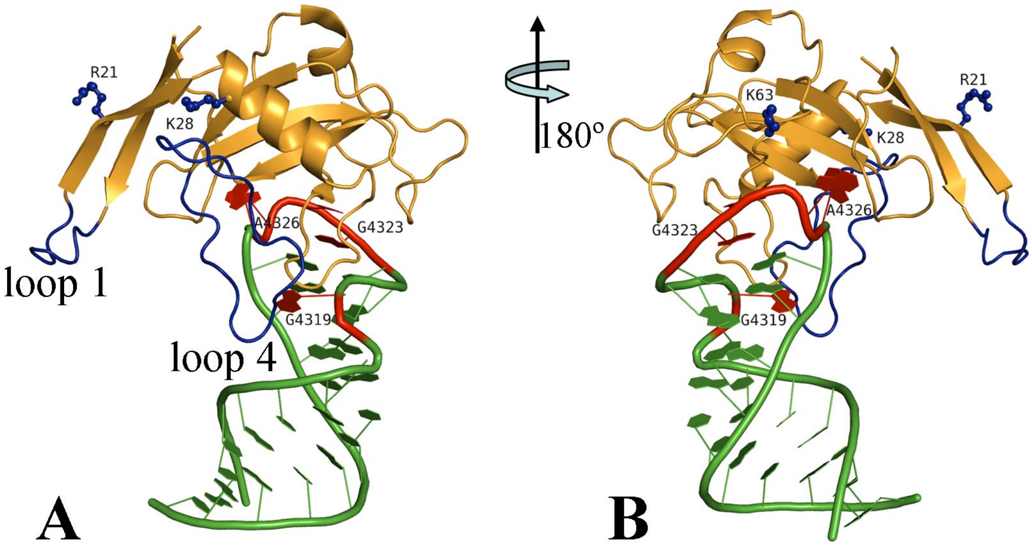

Fig. S1. Native complex of restrictocin (orange) and the SRL RNA (green). Loop 1 and loop 4 of restrictocin and three of its residues studied by mutations are shown in blue; the tetraloop and bulged-G of the SRL RNA are shown in red. Views in *A* and *B* are related by a 180° rotation around a vertical axis.

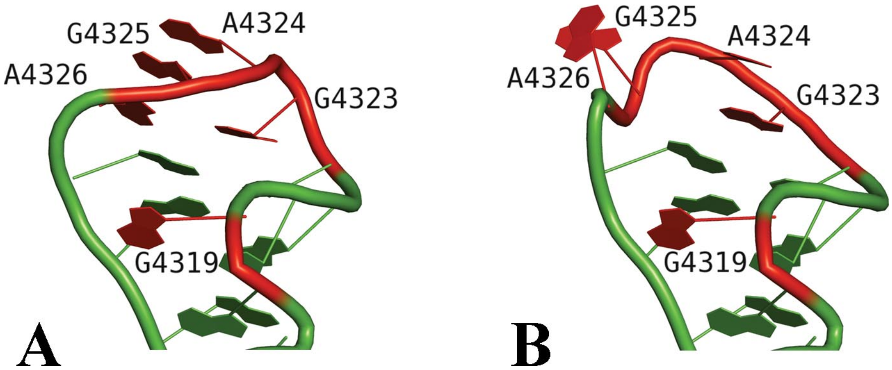

Fig. S2. Conformations of the SRL tetraloop in the unbound (*A*) and bound (*B*) states.

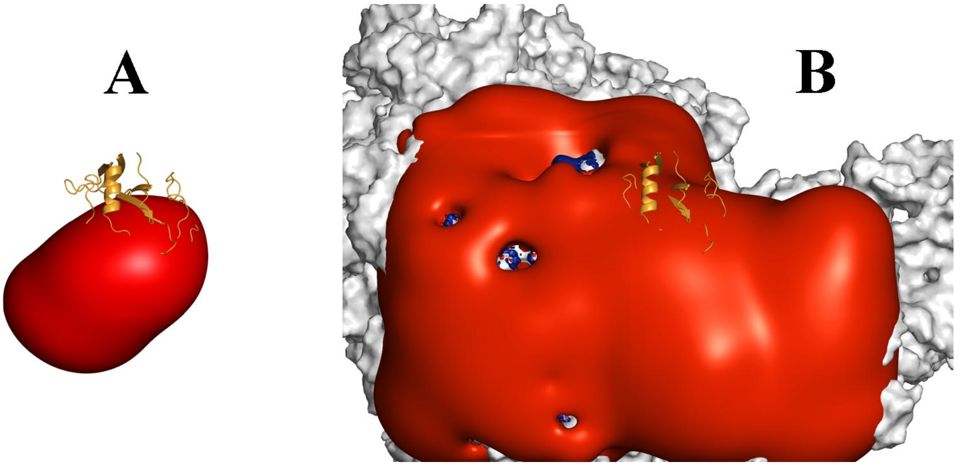

Fig. S3. Electrostatic potential surfaces of the SRL RNA (*A*) and the ribosome (*B*). Both surfaces display electrostatic potential at $-1\ k_BT/e$, calculated at $I = 60$ mM. A restrictocin molecule is shown as orange ribbon to indicate the reach of the electrostatic potentials.

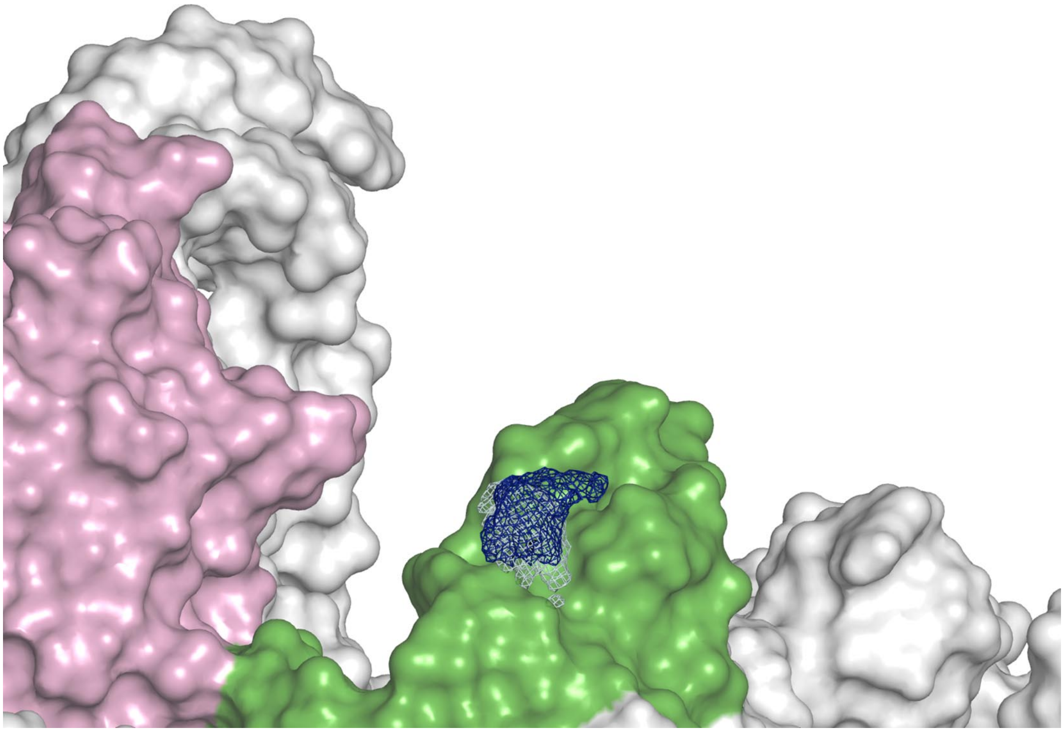

Fig. S4. Regions explored by the displacement vector *r* in the transient complexes of restrictocin with the ribosome (blue isodensity surface) and the SRL RNA (cyan isodensity surface). The SRL and ribosomal protein L14 are shown as green and pink surfaces, respectively.

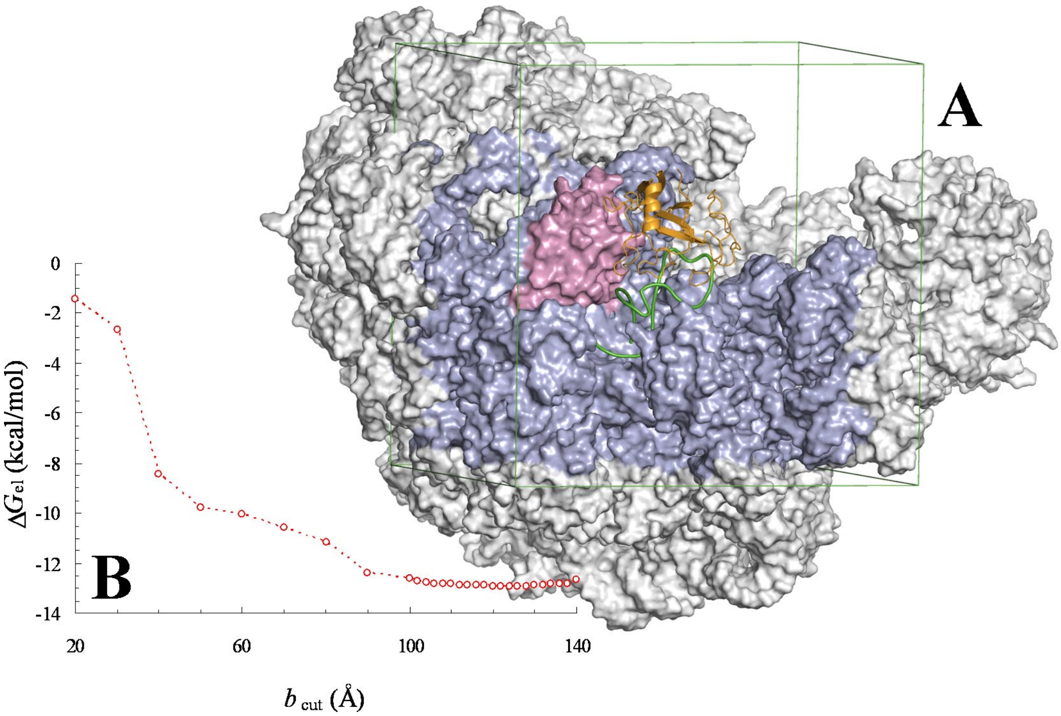

Fig. S5. Truncation of the ribosome–restrictocin complex for electrostatic calculations. (*A*) Whole ribosome–restrictocin complex and the portion, contained in a cubic box with side length b_{cut}, retained for calculating ΔG_{el}. Restrictocin and the SRL are shown as orange and green ribbons, respectively; ribosomal protein L14 is shown as pink surface. The rest of the system within the cubic box is shown as light blue, and the regions outside the cubic box are shown as gray. (*B*) Effect of the cutoff size on the electrostatic interaction free energy. Results are for $I = 11$ mM.