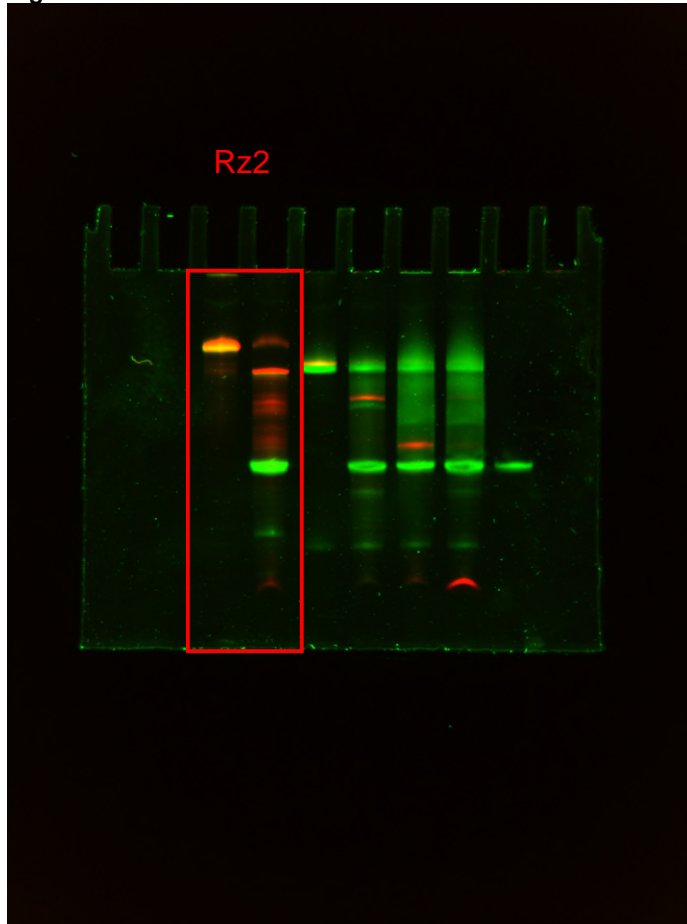


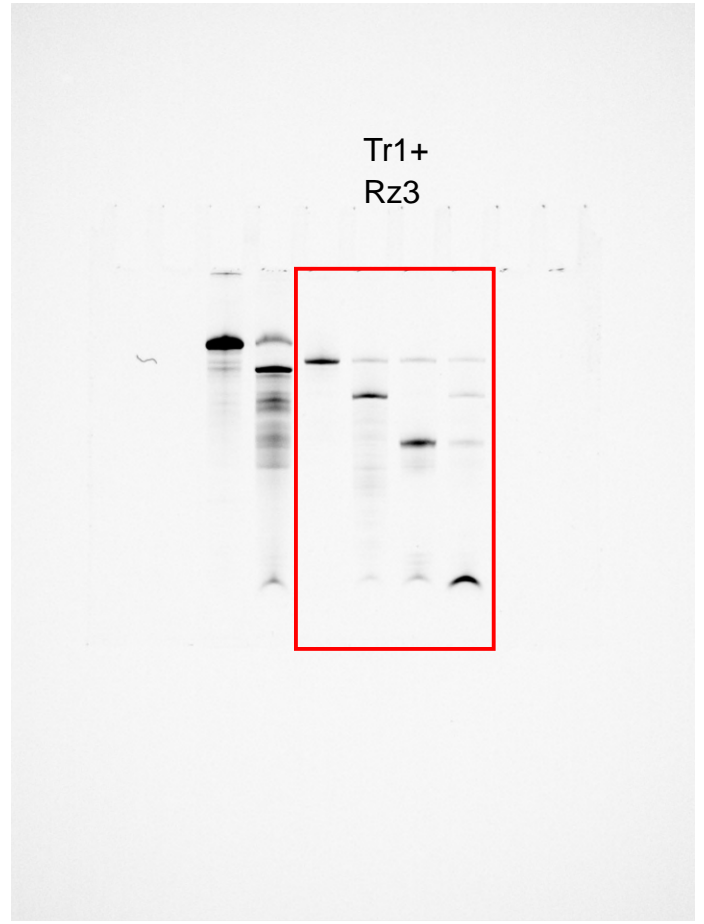
Uncropped images (full scans) of gels used in Figures 2C, 2H, 3B, 4B and SI Figures S1C, S2B–C, S3A, S3C–D, S6D&G, S7A&D, S9B–D. The regions used are indicated by red boxes and labeled with the corresponding RNA substrates and ribozymes according to the numbers in Supplementary Tables S3 – S4.

Full-size images for Figure 2

Figure 2C

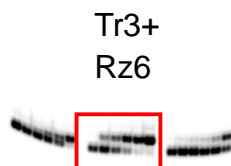


15% PAGE, 10 × 8 cm, 200 V, 70 min, stained with SYBR Gold, dual channel



15% PAGE, 10 × 8 cm, 200 V, 70 min, stained with SYBR Gold, Cy5 channel

Figure 2H. 15% PAGE, 10 × 30 cm, 2 h 30 m, imaged by autoradiography



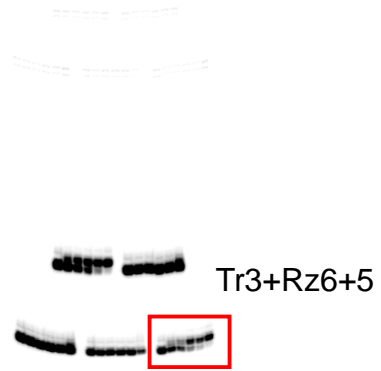
Full-size images

Figure 3B



15% PAGE, 10 x 40 cm, 1 h 20 m, imaged by autoradiography

Figure 4B: 5'-³²P- labeled RNA + ribozyme with cofactor 5

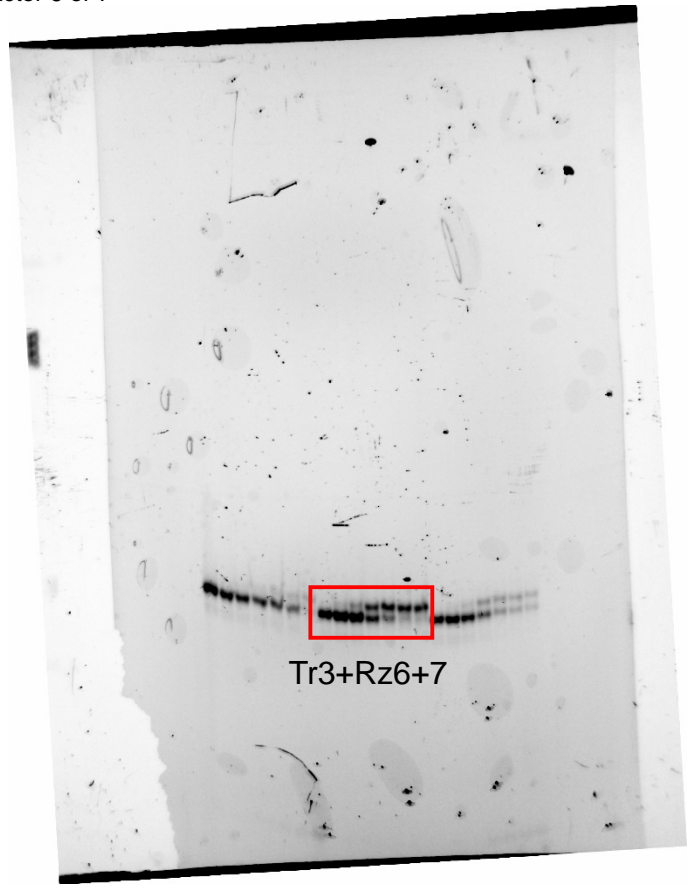


15% PAGE, 10 x 40 cm, 3 h, imaged by autoradiography

Figure 4B: 3'-fluorescently labeled RNA (Tr3) + ribozyme with cofactor 6 or 7



15% PAGE, 10 x 40 cm, 2 h 30 m, fluorescence imaging

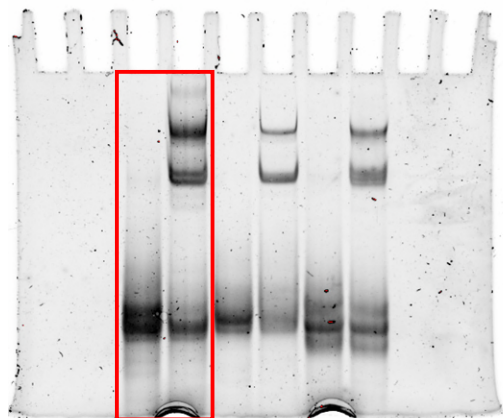


15% PAGE, 10 x 40 cm, 2 h 30 m, fluorescence imaging

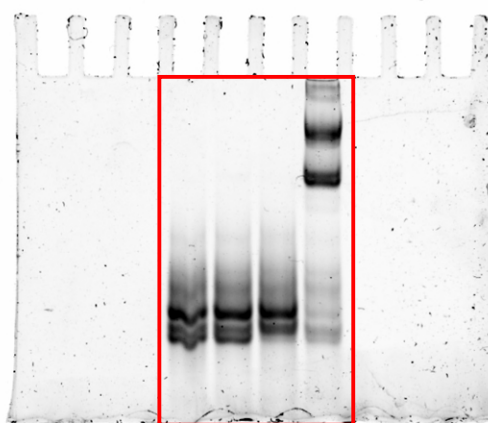
Full-size images for Figure S1C

10% native PAGE, 10 × 8 cm, 200 V, 45 min, stained with SYBR Gold.

7R pool

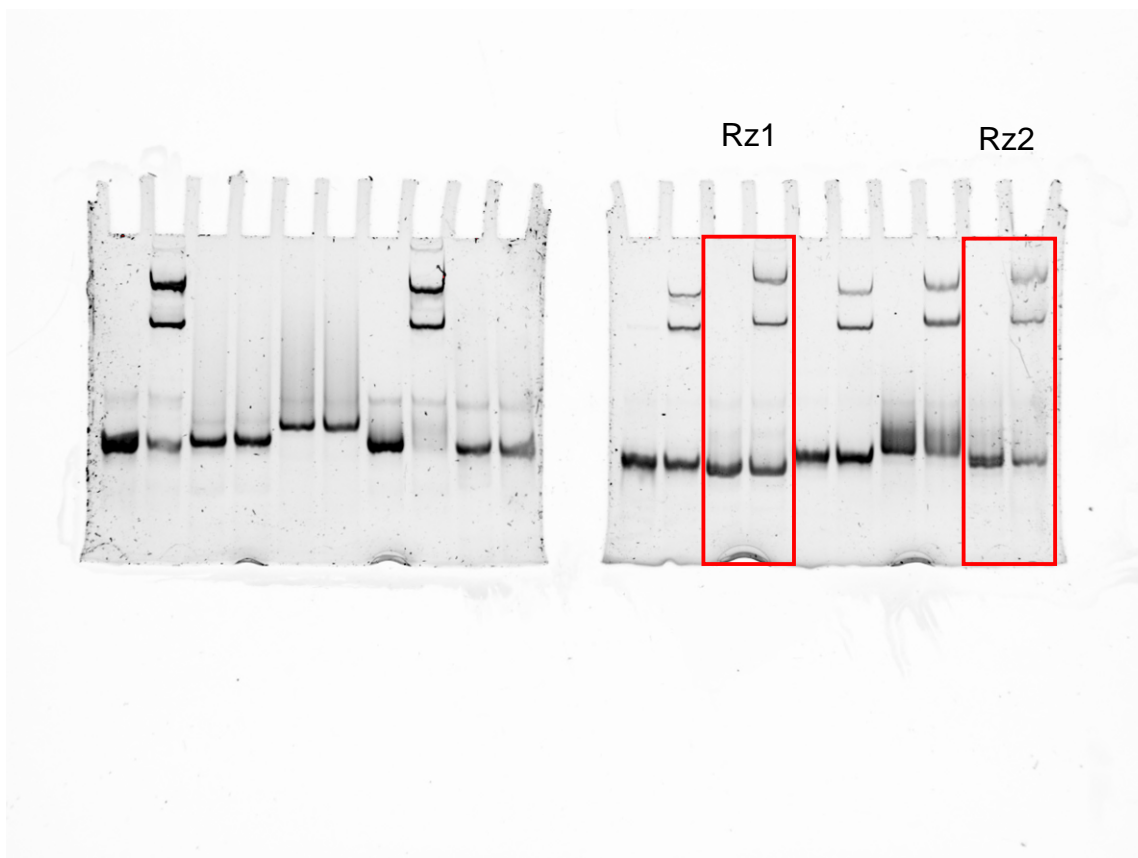


8R pool



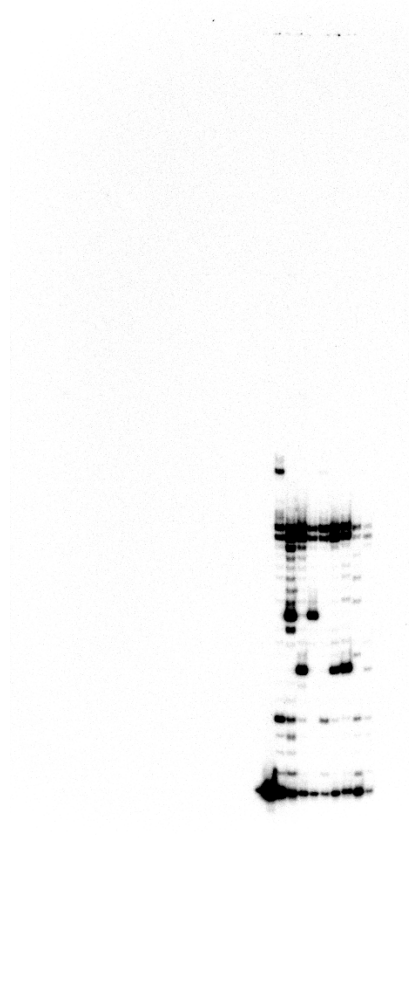
Rz1

Rz2



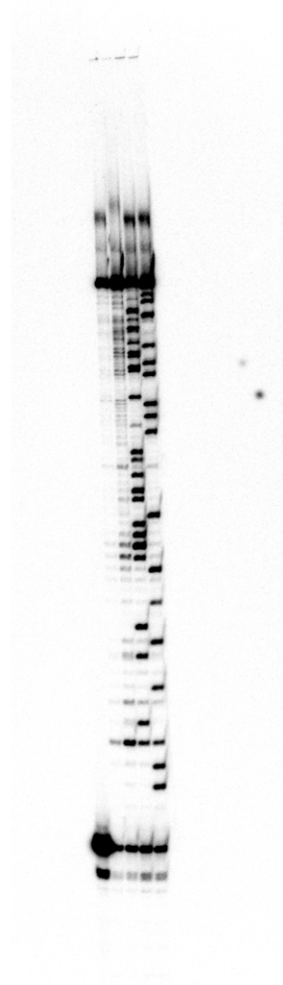
Full-size images for Figure S2: 5'-³²P-labeled DNA primers.

Figure S2B



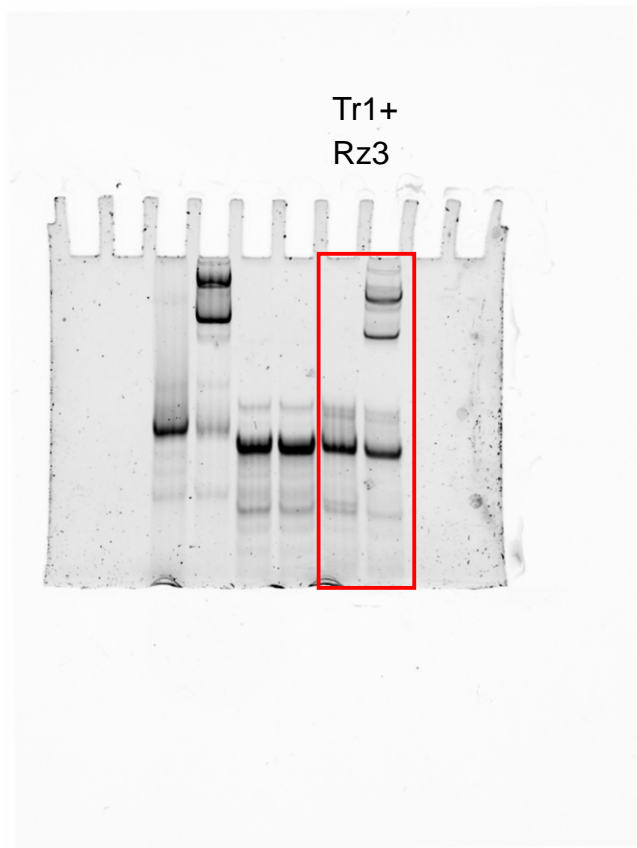
15% PAGE, 20 x 40 cm, 45 W, 2 h 40 min

Figure S2C

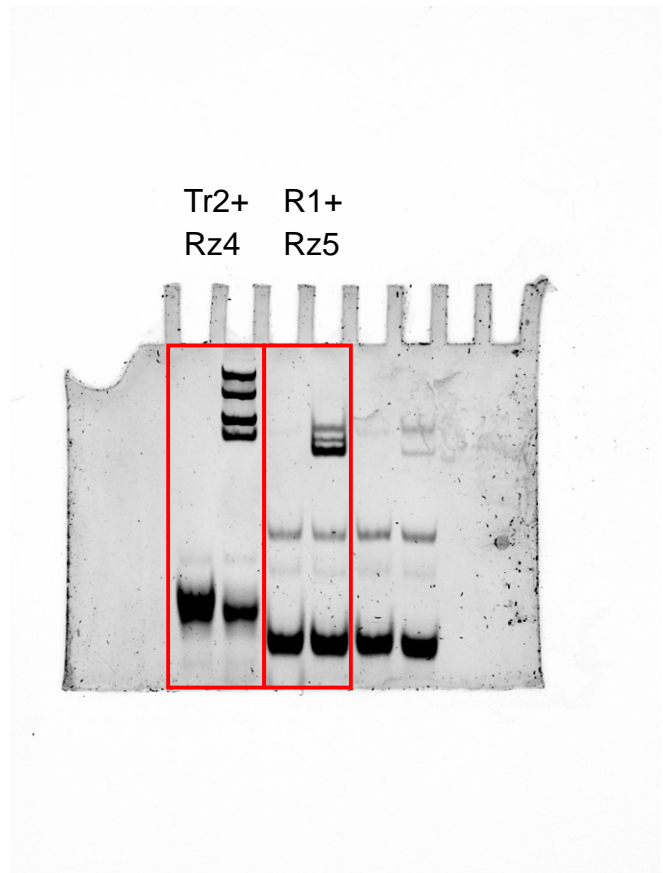


20% PAGE, 20 x 40 cm, 45 W, 3 h 30 min

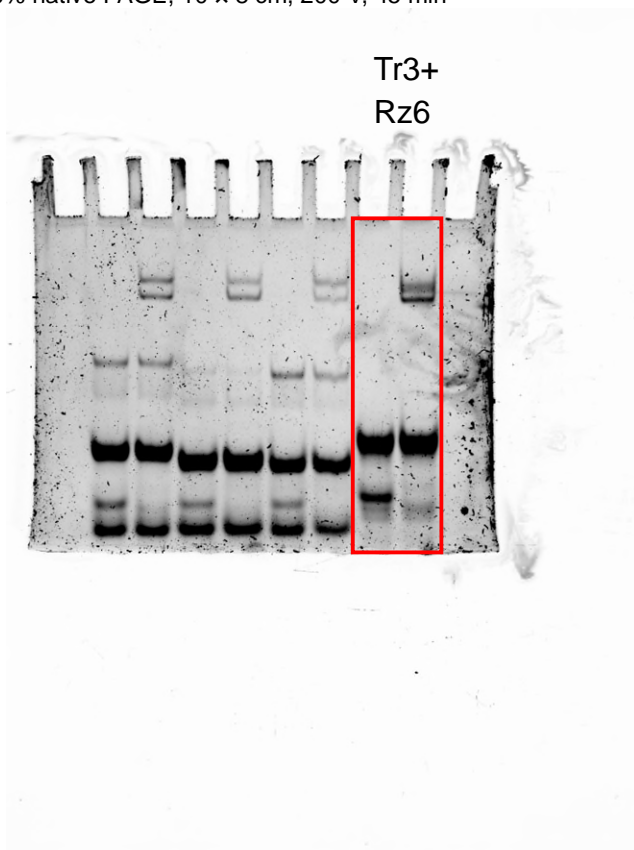
Full-size images for Figure S3A: gels were stained with SYBR Gold



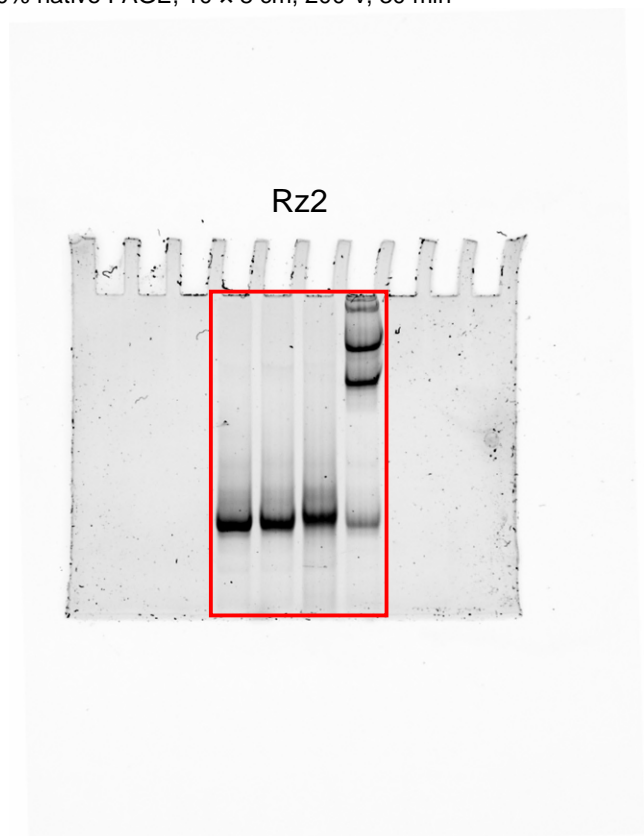
10% native PAGE, 10 × 8 cm, 200 V, 45 min



10% native PAGE, 10 × 8 cm, 200 V, 30 min



10% native PAGE, 10 × 8 cm, 200 V, 30 min



10% native PAGE, 10 × 8 cm, 200 V, 45 min

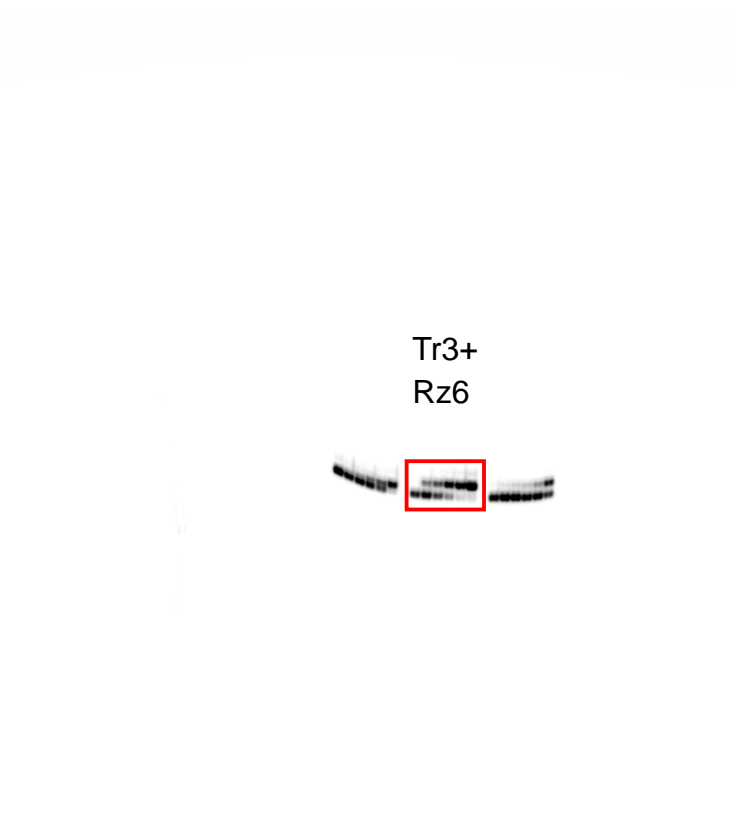
Full-size images for Figure S3: 5'-³²P-/3'-fluorescently labeled RNA

Figure S3C



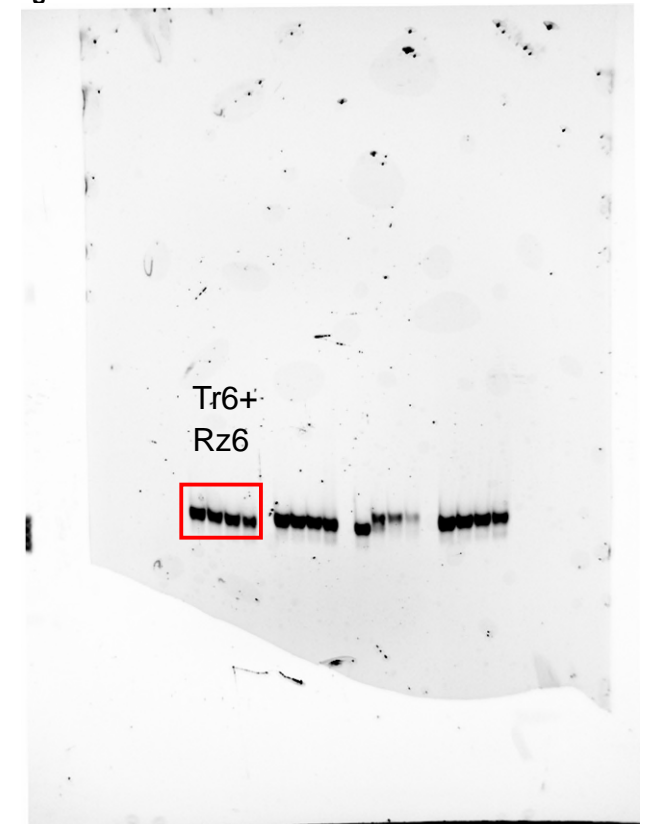
20% PAGE, 10 × 30 cm, 2 h 40 m, fluorescence imaging

Figure S3D



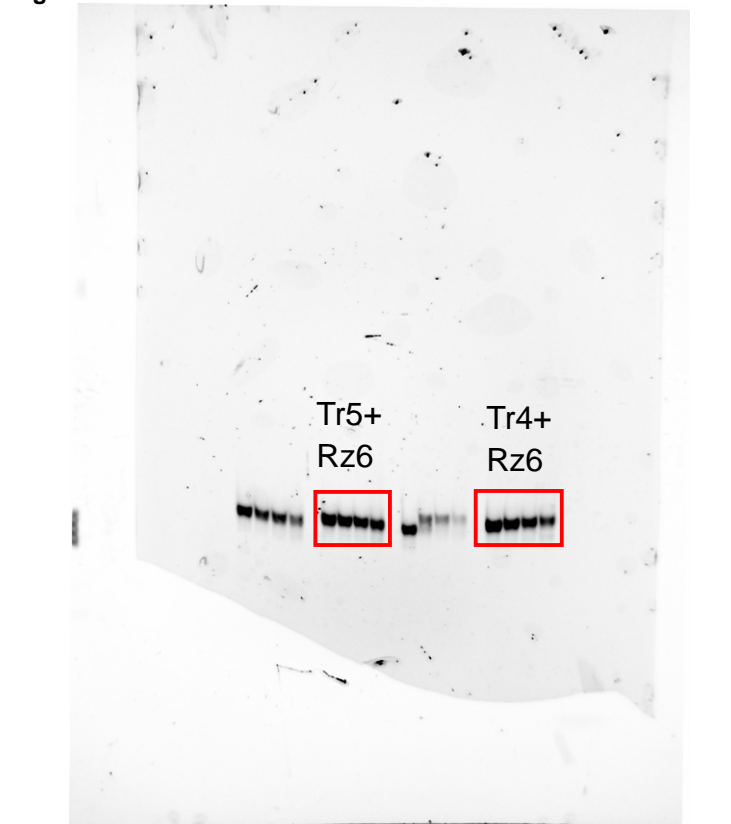
15% PAGE, 10 × 30 cm, 2 h 30 m, imaged by autoradiography

Figure S3D



20% PAGE, 10 × 30 cm, 2 h 50 m, fluorescence imaging

Figure S3D

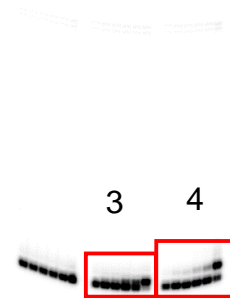


20% PAGE, 10 × 30 cm, 2 h 50 m, fluorescence imaging

Full-size images for Figure S6D: 5¹⁻³²P-/3'-fluorescently labeled RNA (Tr3) + CSAR (Rz6) with cofactors (2 – 8).



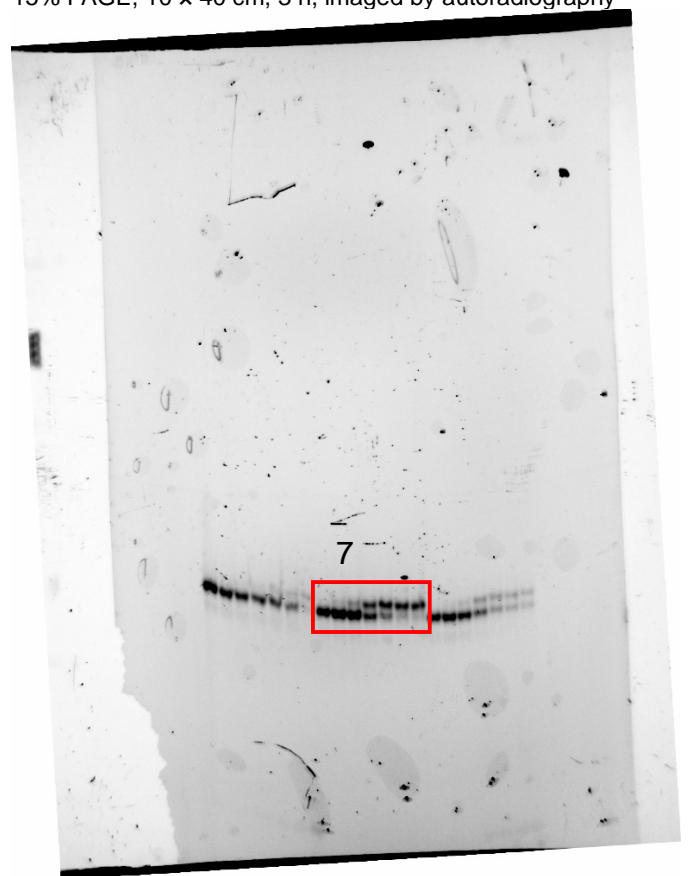
15% PAGE, 10 × 40 cm, 3 h, imaged by autoradiography



15% PAGE, 10 × 40 cm, 3 h, imaged by autoradiography



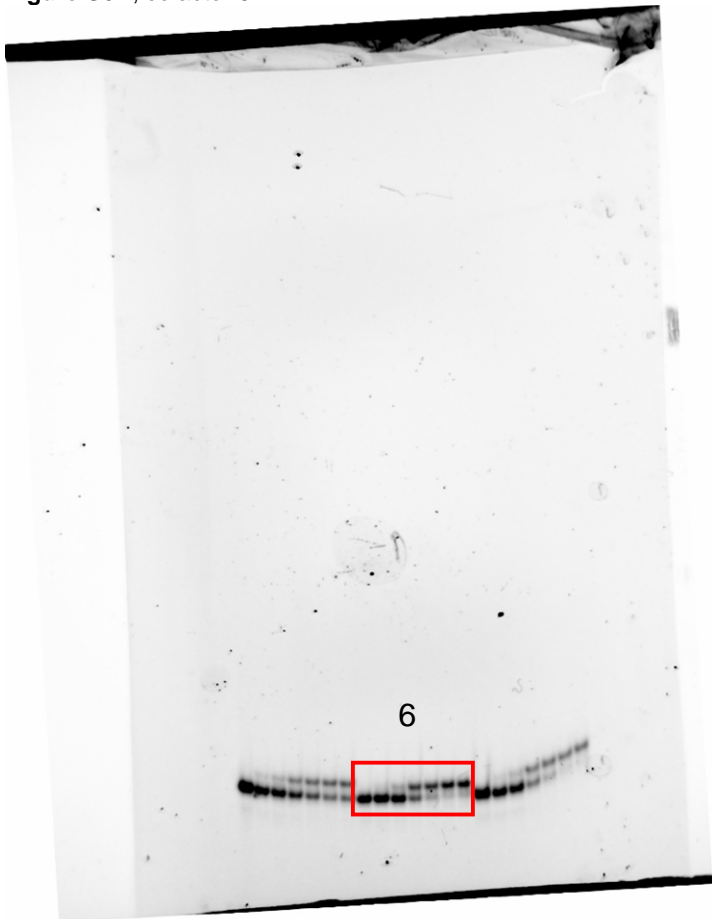
15% PAGE, 10 × 40 cm, 2 h 40 m, imaged by autoradiography



15% PAGE, 10 × 40 cm, 2 h 30 m, fluorescence imaging

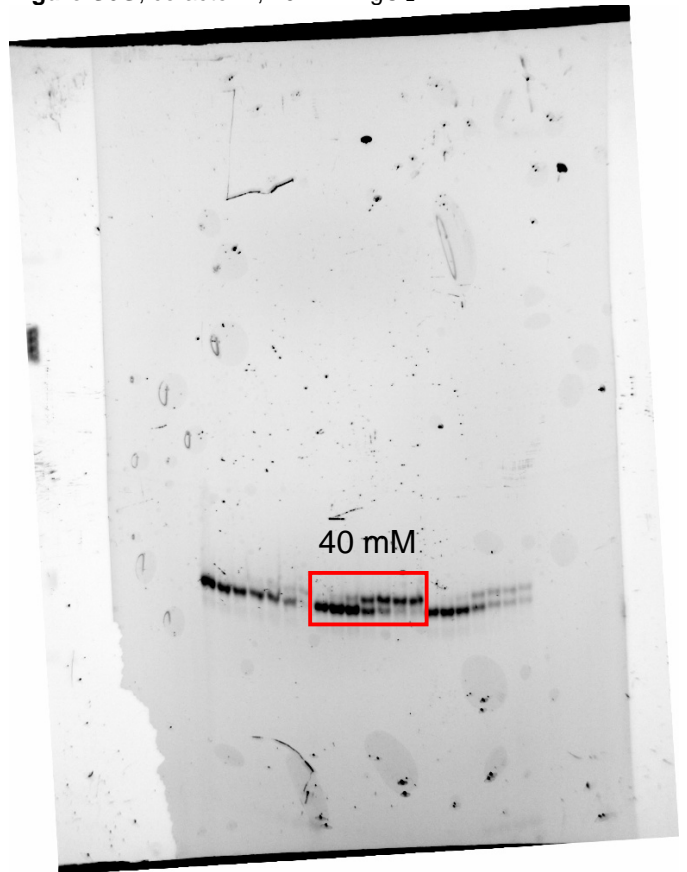
Full-size images: 3'-fluorescently labeled RNA (Tr3) + CSAR (Rz6)

Figure S6D, cofactor 6



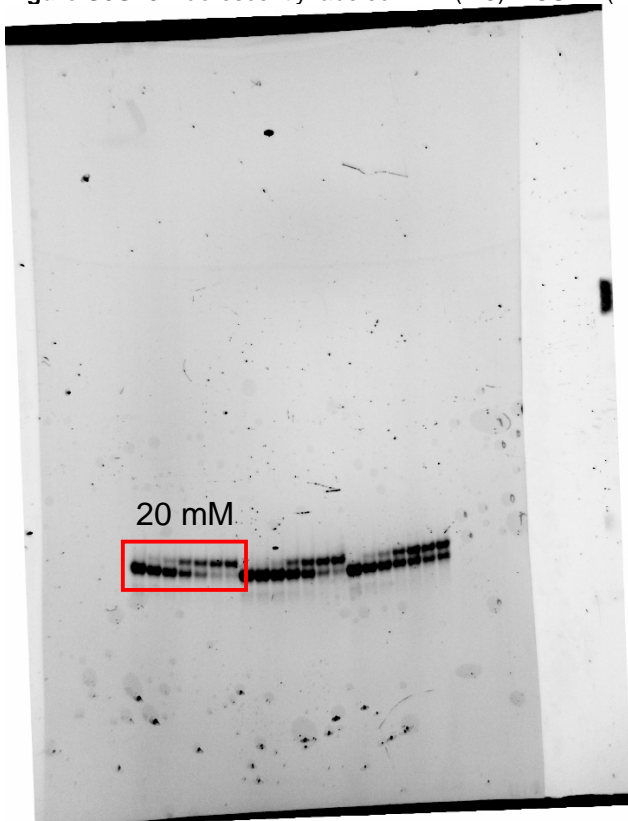
15% PAGE, 10 x 40 cm, 2 h 30 m, fluorescence imaging

Figure S6G, cofactor 2, 40 mM MgCl₂

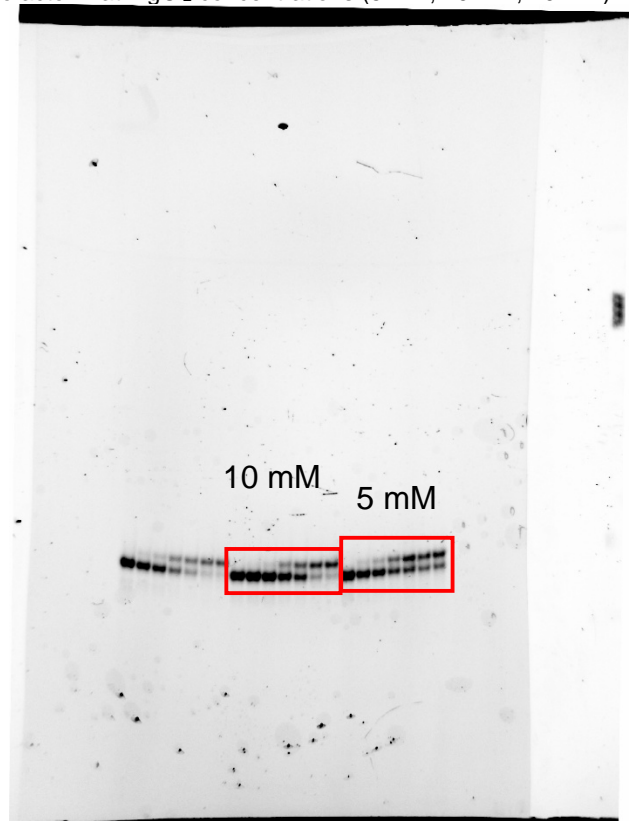


15% PAGE, 10 x 40 cm, 2 h 30 m, fluorescence imaging

Figure S6G: 3'-fluorescently labeled RNA (Tr3) + CSAR (Rz6) with cofactor 2 at MgCl₂ concentrations (5 mM, 10 mM, 20 mM)



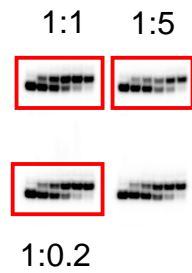
15% PAGE, 10 x 40 cm, 2 h 30 m, fluorescence imaging



15% PAGE, 10 x 40 cm, 2 h 30 m, fluorescence imaging

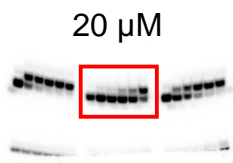
Full-size images for Figure S7: 5'-³²P-labeled RNA (Tr3) + CSAR (Rz6)

Figure S7A: different ratio of cofactors 2 to 8

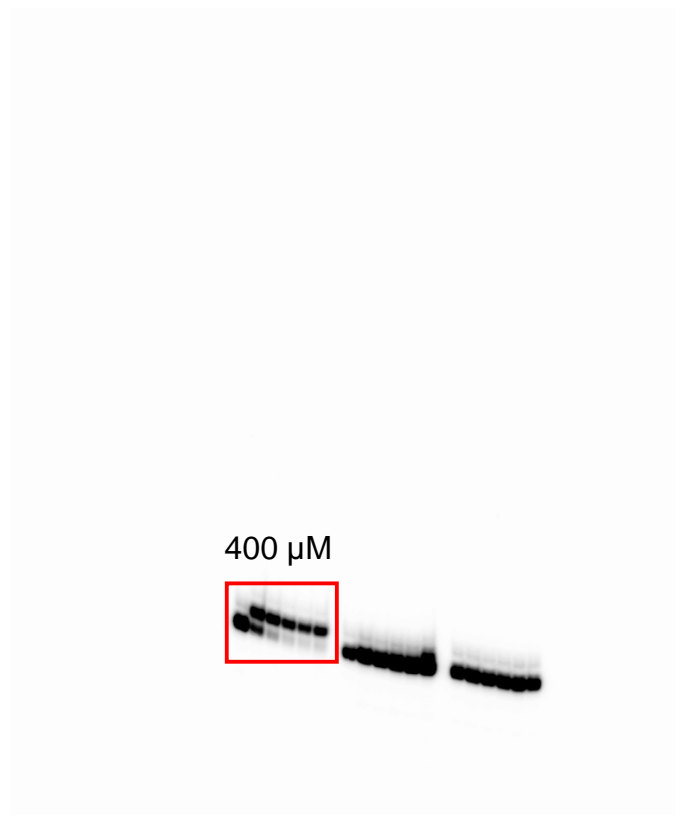


15% PAGE, 10 × 40 cm, 2 h 40 m, imaged by autoradiography

Figure S7D: cofactor 2 at concentrations (20 μM and 400 μM)



15% PAGE, 10 × 40 cm, 3 h, imaged by autoradiography



15% PAGE, 10 × 40 cm, 2 h 40 m, imaged by autoradiography

Full-size images for Figure S9

Figure S9B



15% PAGE, 10 x 40 cm, 1 h 25 m, imaged by autoradiography

Figure S9C



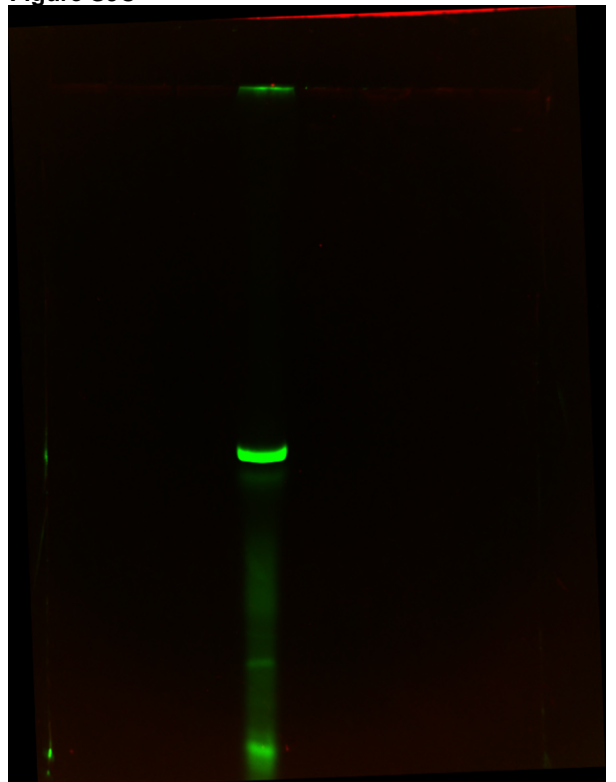
20% PAGE, 10 x 30 cm, 2 h 20 m, FAM channel

Figure S9C



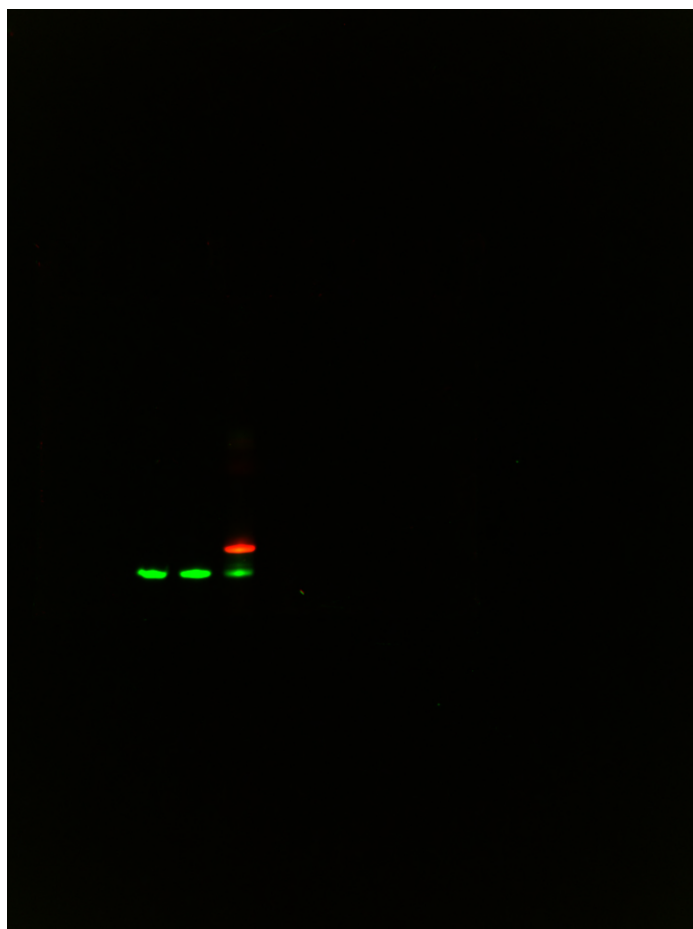
20% PAGE, 10 x 30 cm, 2 h 20 m, UV channel

Figure S9C

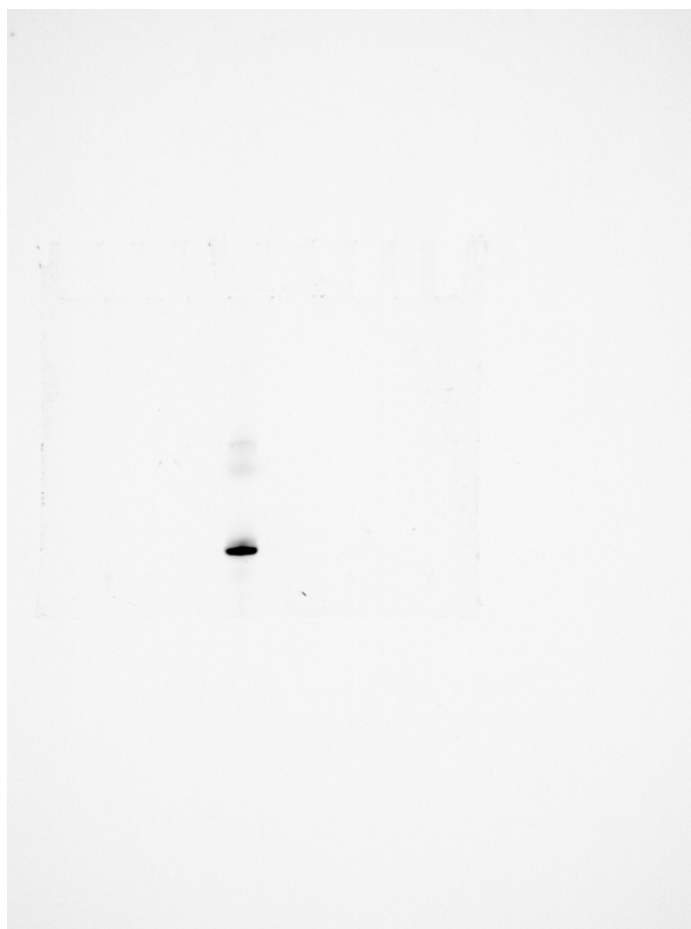


20% PAGE, 10 x 30 cm, 2 h 20 m, dual channel

Full-size images for Figure S9D: 3'-fluorescently labeled RNAs (R2)



15% PAGE, 10 × 8 cm, 200 V, 80 min, dual channel



15% PAGE, 10 × 8 cm, 200 V, 80 min, Cy5 channel