

Supplementary Figure S4 Effect of Mg²⁺ on 50S translocation.

(A) EF-G-concentration dependence of 50S translocation (23°C). Mg^{2+} concentration was 3.5 mM (\bigtriangledown), 7.5 mM (\bigtriangleup), 10 mM (\square), 15 mM (\diamondsuit), or 20 mM (\bigcirc). The values of $k_{50S\,TL}$ (rate at saturation) and K_{EFG} (EF-G concentration at half-saturation) were estimated by hyperbolic fitting.

(**B**) Linearized dependence of $K_{EFG}(\bullet)$ on Mg^{2+} . The dependence of K_{HC} between hybrid and classical states as recalculated from published data(Kim et al, 2007) is shown for comparison (O). The slopes suggest the participation of one (K_{EFG}) or one to two (K_{HC}) net Mg^{2+} ions.

Supplementary References

Kim HD, Puglisi JD, Chu S (2007) Fluctuations of transfer RNAs between classical and hybrid states. *Biophys J* **93:** 3575-3582