Electronic Supplementary Material (ESI) for RSC Advances.

Bulky cations greatly increase the turnover of a native hammerhead ribozyme

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Electronic supporting information

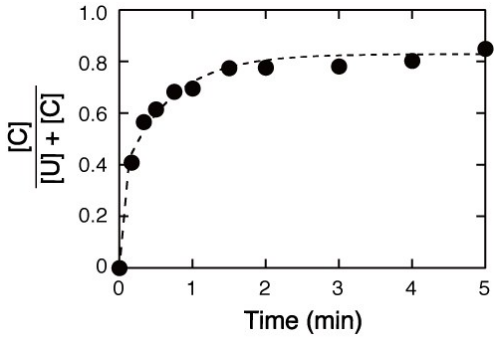

Fig. S1 The kinetic trace of the ribozyme-catalyzed substrate cleavage under the single-turnover condition conducted with 10 mM $MgCl_2$ at 37°C. The relative proportions of the populations that cleave fast and slowly are about 1:1.

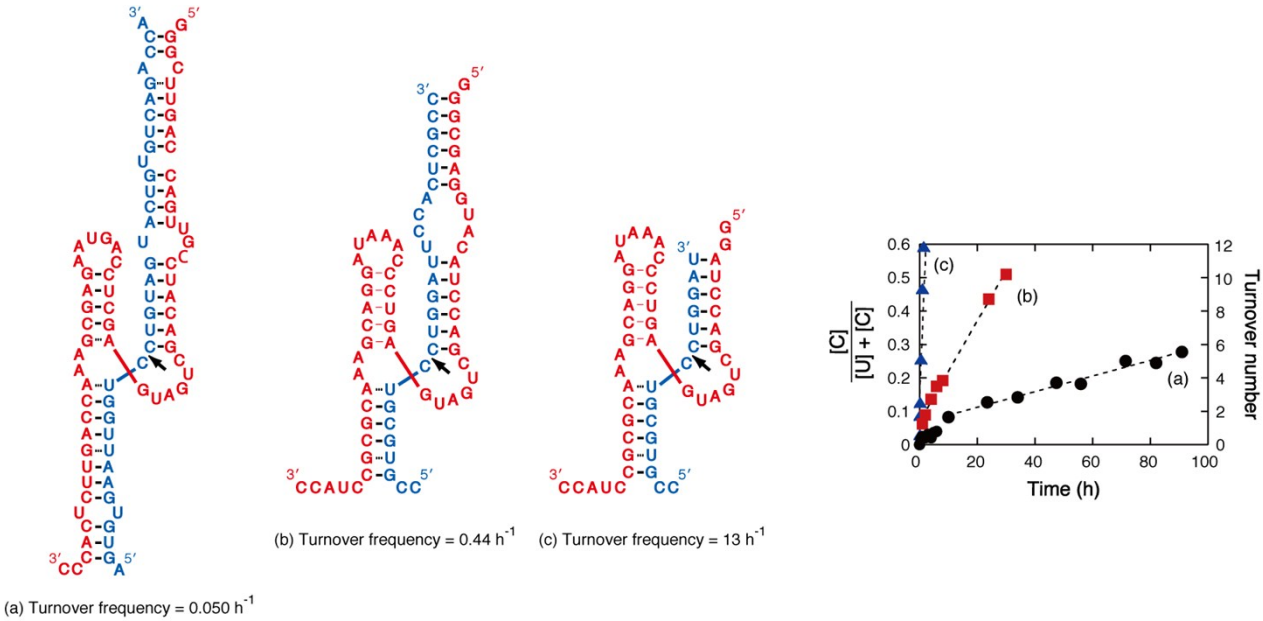

Fig. S2 The ribozyme-substrate complexes formed by HH10 and short ribozyme constructs derived from *Schistosoma mansoni*. Kinetic traces and the turnover frequencies at 10 mM $MgCl_2$ at 37°C are also presented.

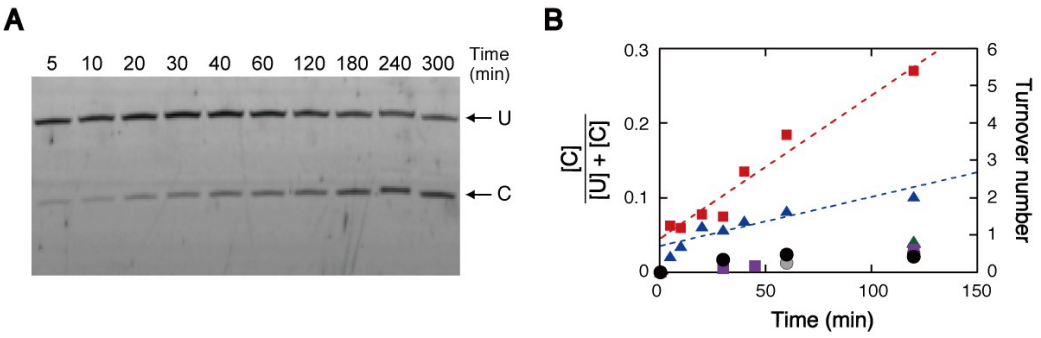

Fig. S3 (A) Polyacrylamide gel electrophoresis of the ribozyme-catalyzed substrate cleavage under multiple-turnover conditions in the presence of 100 mM TPeA. The upper and lower bands are uncleaved substrates and cleaved fragments, respectively. (B) Kinetic traces for substrate cleavage under multiple-turnover conditions in the absence (black circles) and presence of TMA (gray circles), TEA (green triangles), TPrA (purple squares), TBA (blue triangles), or TPeA (red squares) at 100 mM.