**Supplementary Figure 3** *In vitro* selection using Phe-CME. (a) RNA pool. The pool was designed based on the sequence of the original Fx. The random base regions are shown as N. The microhelix RNA is attached to the 3' end of the ribozyme pool. Three pools were mixed and used for the selection. (b) Structure of Phe-CME used for selection. (c) Progress of selection. (d) Sequence alignment of active clones. Randomized position in pool are shown in boxes and black letters indicate mutations from Fx. Clone 13 (same as 23) was found to be the most active Fx, named eFx, *in trans*. 