

**S4 Fig**. **Activation of the** **S1-Apt1/LRD-Apt1 aptazyme system by ATP.** The cleavage of the substrate S1-Apt1 by the DNAzyme LRD-Apt1 in the presence and absence of 1 mM ATP was monitored at at the following time points: 1, 2, 5, 10, 20, 30, 60, 120, 180 min. The fraction of the substrate that remained uncleaved is determined and plotted vs. the reaction time.