Supplementary Information

Covalent split protein fragment–DNA hybrids generated through N-terminus-specific modification of proteins by oligonucleotides

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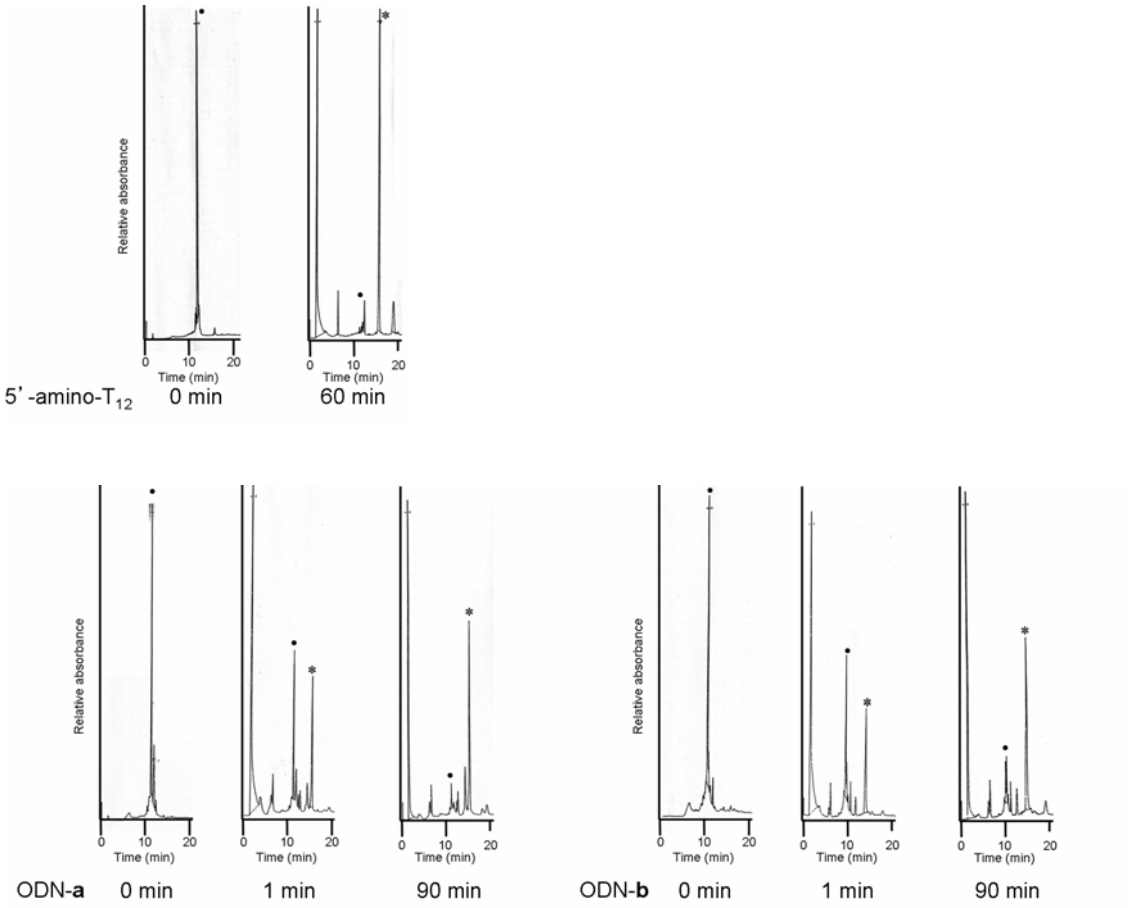

Figure S1. RP-HPLC analyses of the reaction of amine-terminated oligonucleotides with the reagent **3**. The amino-oligonucleotides and the reaction products TE-ODNs are denoted by • and ∗, respectively. The reaction for 5'-amino-T_{12} was performed under the almost same condition described in *Experimental section*. MALDI-TOF-MS (Matrix: 3-hydroxypicolinic acid): TE-T_{12} $[M+H]^+$ = calcd 4045.72, obsd 4046.62.

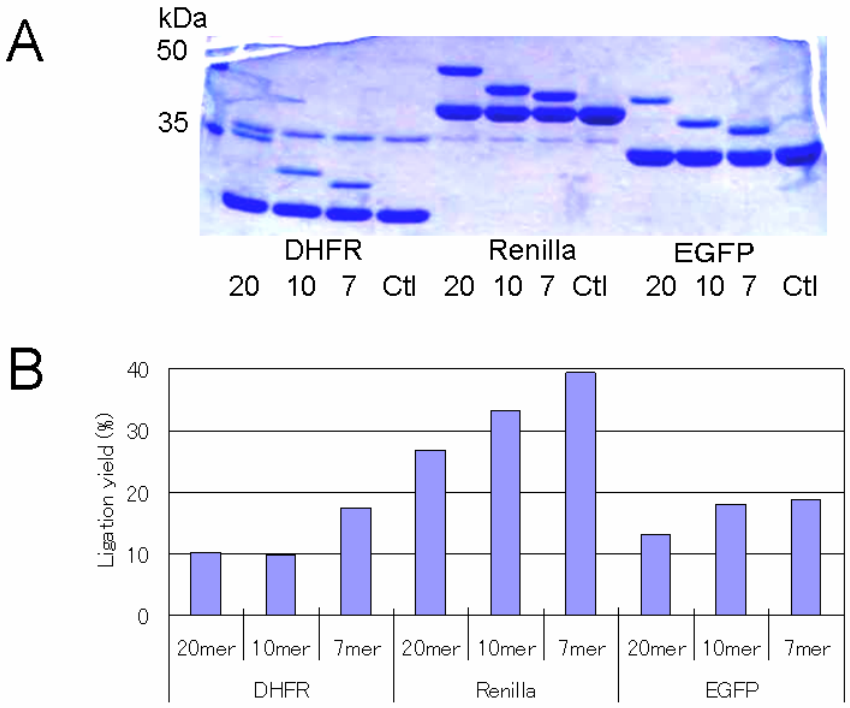

Figure S2. SDS-PAGE analysis of the ligation reaction between Cys-Proteins and 5'-TE-T oligomers. (A) Coomassie brilliant blue-stained gel image of the reaction mixtures. (B) Ligation yields determined by the gel image analyses. Each of the protein constructs containing an N-terminal cysteine were bacterially expressed and purified as described in *Experimental section*. To a solution of 9 μL of Cys-Protein (32 μM DHFR, 40 μM *Renilla* luciferase, or 37 μM EGFP) was added 3 μl of 5'-TE-T oligomers (1 mM; 7, 10, or 20 mer), and the ligation solution was incubated at 4 °C for 48h. After the reaction, the mixtures were applied to SDS-PAGE analysis under reducing condition.