Supporting Information

Radiolytic cyclization of stem-and-loop structured oligodeoxynucleotide with neighboring arrangement of α,ω-bis-disulfides

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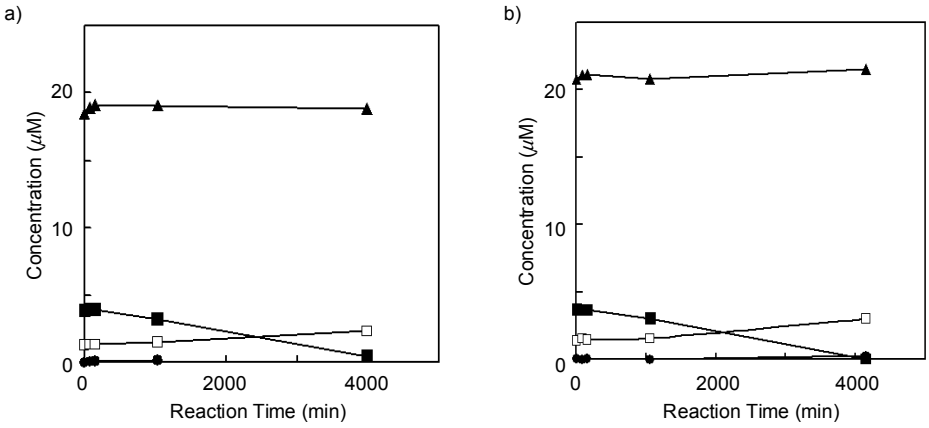

Fig. S1 The reaction profile of ODN 1 in the presence of ODN 5. Ar-purged aqueous solution of (triangle) ODN 1 and (filled square) ODN 5 in a 10 mM phosphate buffer (a: pH 7.0, b: pH 8.7) containing 100 mM NaCl and 50 mM 2-methyl-2-propanol were incubated at ambient temperature. A slight amount of (open square) dimerized ODN 5 was formed during the reaction, while the formation of (circle) ODN C1 was negligible.

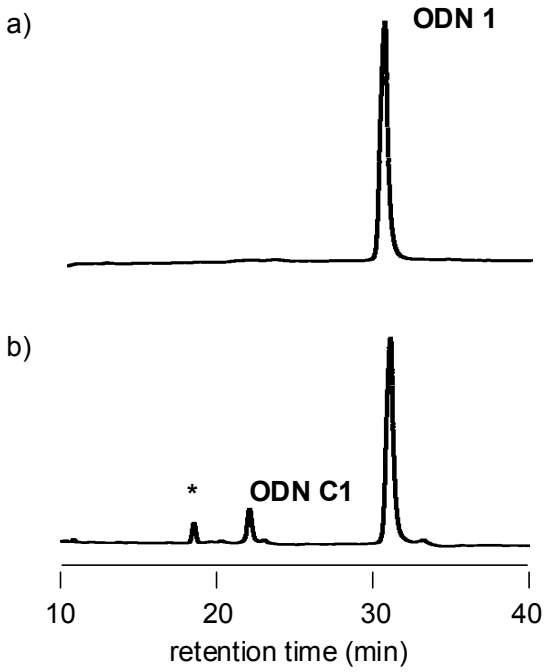

Fig. S2 HPLC profiles of the photoreaction of ODN 1 (4.3 μM) upon 254-nm irradiation in Ar-purged phosphate buffer solution (pH 7.0) containing 50 mM 2-methyl-2-propanol: (a) before photoreaction; (b) after photoirradiation for 9 h. The yield of ODN C1 was estimated to be 13%. The HPLC signal indicated with a symbol "*" corresponds to a photodegradation product that could not be identified.

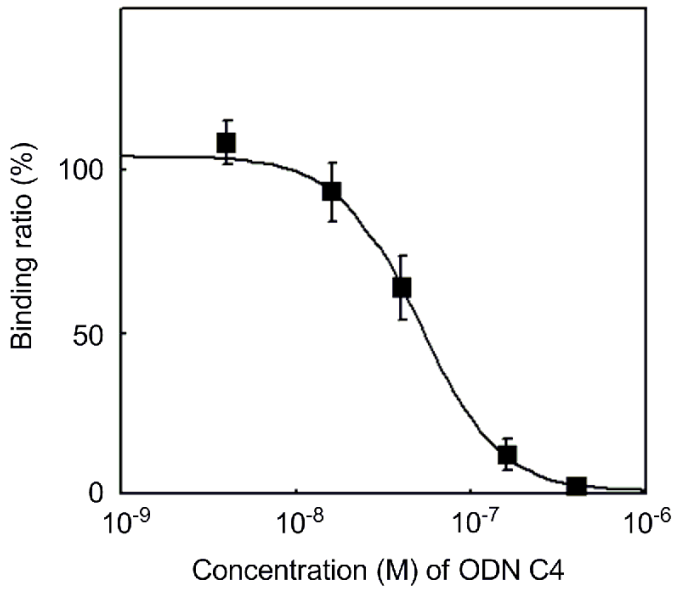

Fig. S3 Competition curves of ODN C4 for binding of NF-κB and ^{32}P-labeled ODN 6/ODN 7 duplex. The IC_{50} value for ODN C4 was estimated by plotting binding ratio of NF-κB and radiolabeled duplex as a concentration of ODN C4. The binding ratio at a given concentration of ODN C4 was calculated by three independent experiments.