Supporting DATA

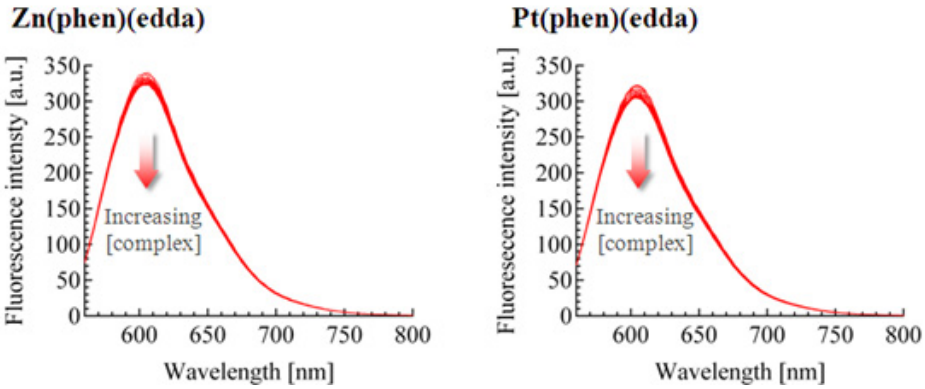


Fig. S1. DNA - ethidium bromide fluorescence quenching.

Measurement Condition:

[ethidium bromide] : 10 μM, [*ct*-DNA] : 40 μM, [complex] : 0 ~ 10 μM

20mM phosphate buffer, pH7.0, 30mM NaCl

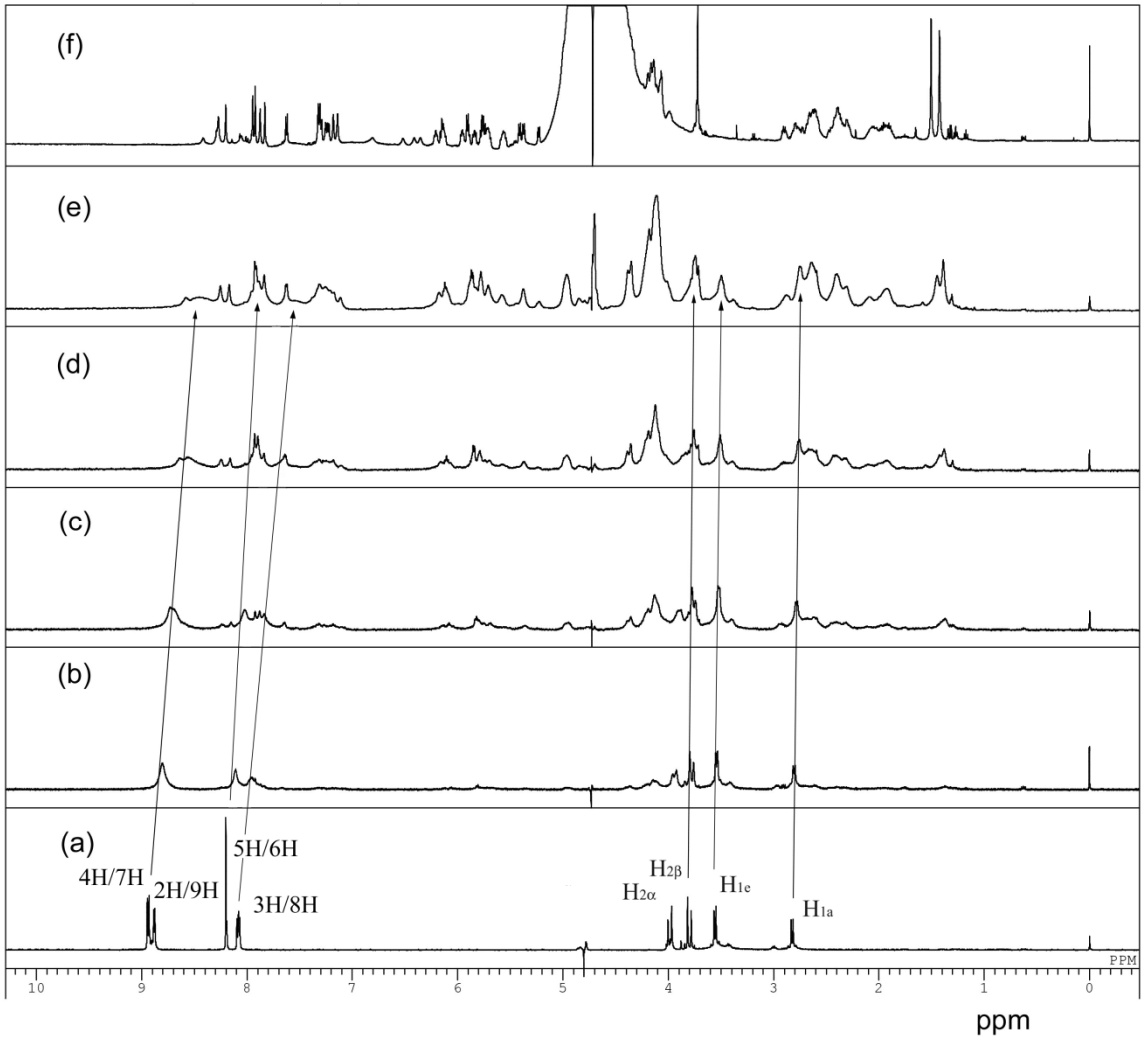


Fig. S2. NMR spectra of Pt(phen)(edda) in the presence of increasing amount of ODN2 ((a) [ODN2] = 0, (b) R = Pt(phen)(edda)]/[ODN2] = 20, (c) R = 10, (d) R = 5, (e) R = 2) in 20 mM phosphate and 30 mM NaCl D_2O solutions at pD 7.0 and (f) ODN2 without Pt(phen)(edda) in 20 mM phosphate and 30 mM NaCl buffer at pH 7.0 (90 % H_2O / 10 % D_2O) without Pt(phen)(edda).

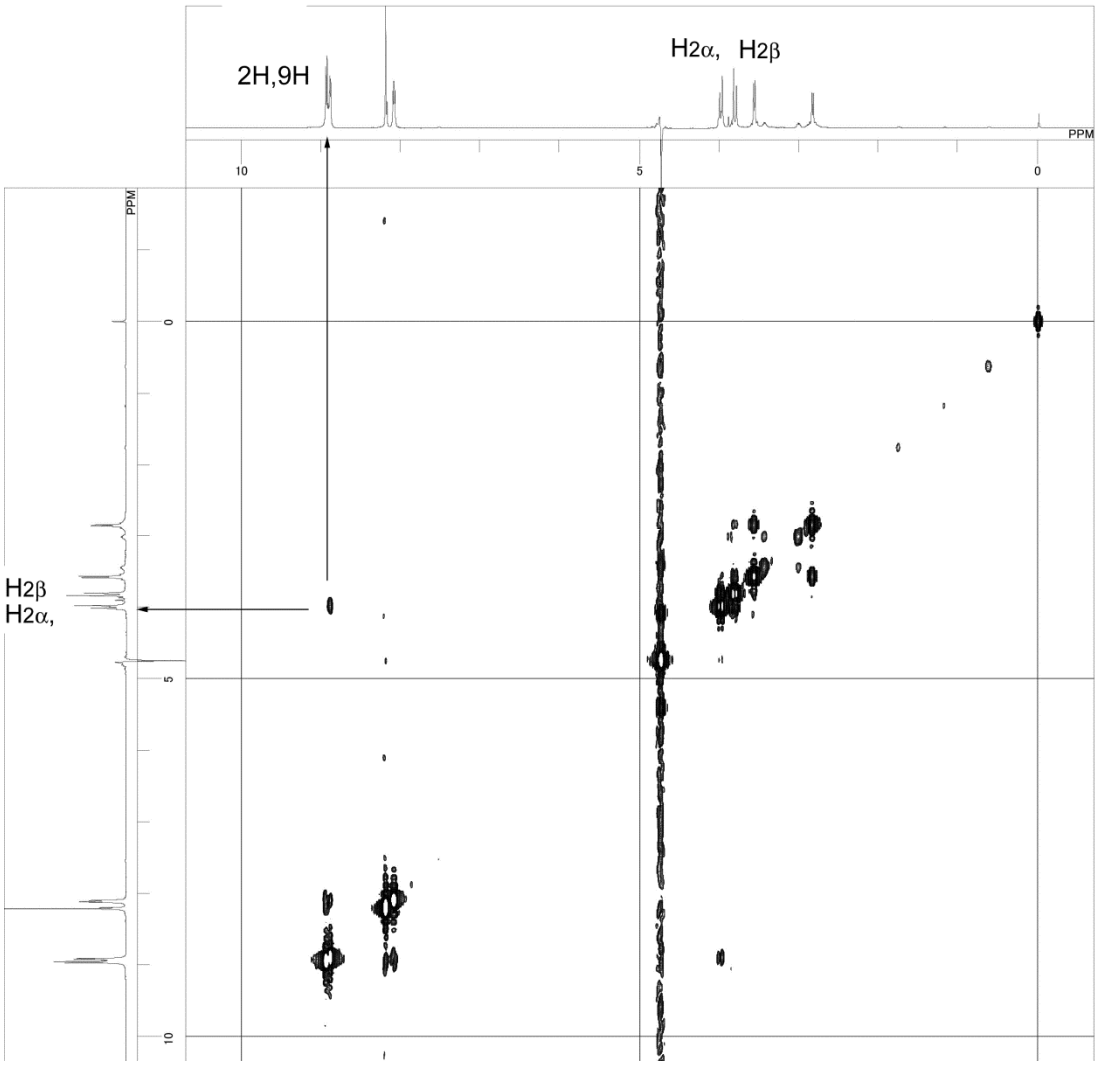


Fig. S3. NOESY spectrum of Pt(II)(phen)(edda) in 20 mM phosphate and 30 mM NaCl buffer solution at pH 7.0.

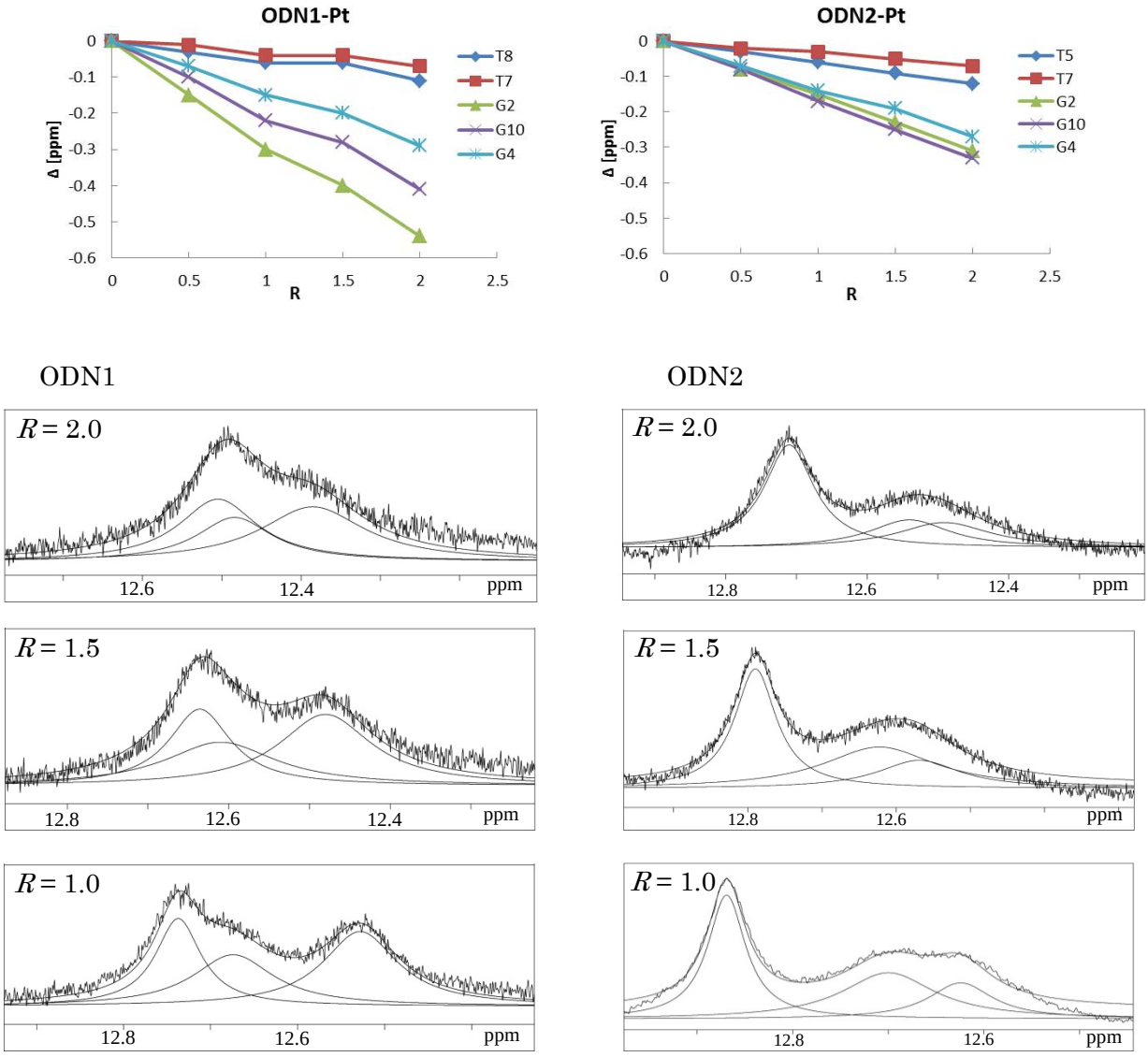


Fig. S4. Change in the chemical shift of the imino-protons of oligonucleotides in the presence of increasing amount of Pt(phen)(edda). The shifts of the overlapping broad signals of G2, G4, and G10 were analyzed by the curve-fitting program in Alice2.

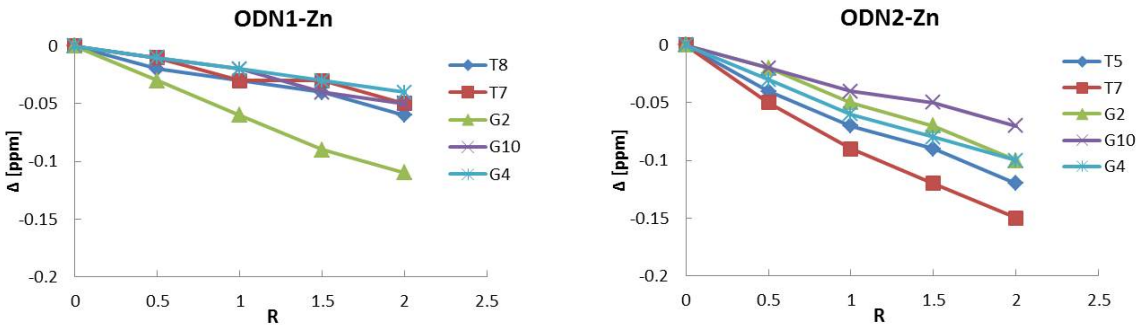
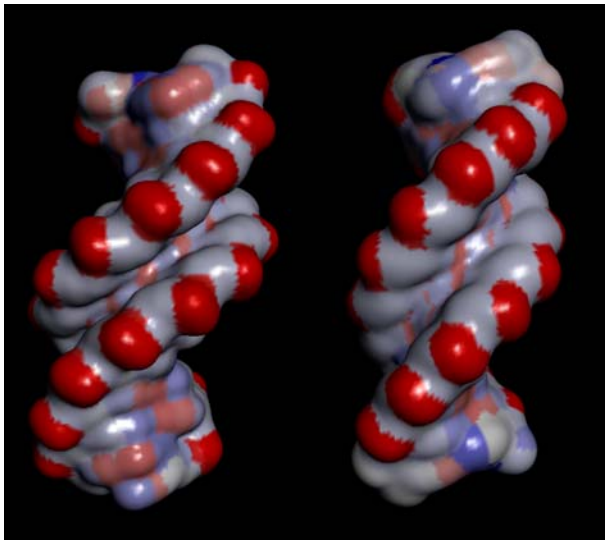


Fig. S5. Change in the chemical shift of the imino-protons of oligonucleotides in the presence of increasing amount of Zn(phen)(edda).



ODN1 ODN2

Fig. S6. The difference in the structure between ODN1 and ODN2 evaluated by molecular dynamic calculation on AMBER12. The initial structures of the nucleotides were constructed by NAB in AmberTool12 and the calculations were made under octagon periodic boundary conditions with TIP3P waters with ff99SB_DNA force filed for 10 ns. The structures of the oligonucleotides were obtained by averaging the final 8ns snapshots.

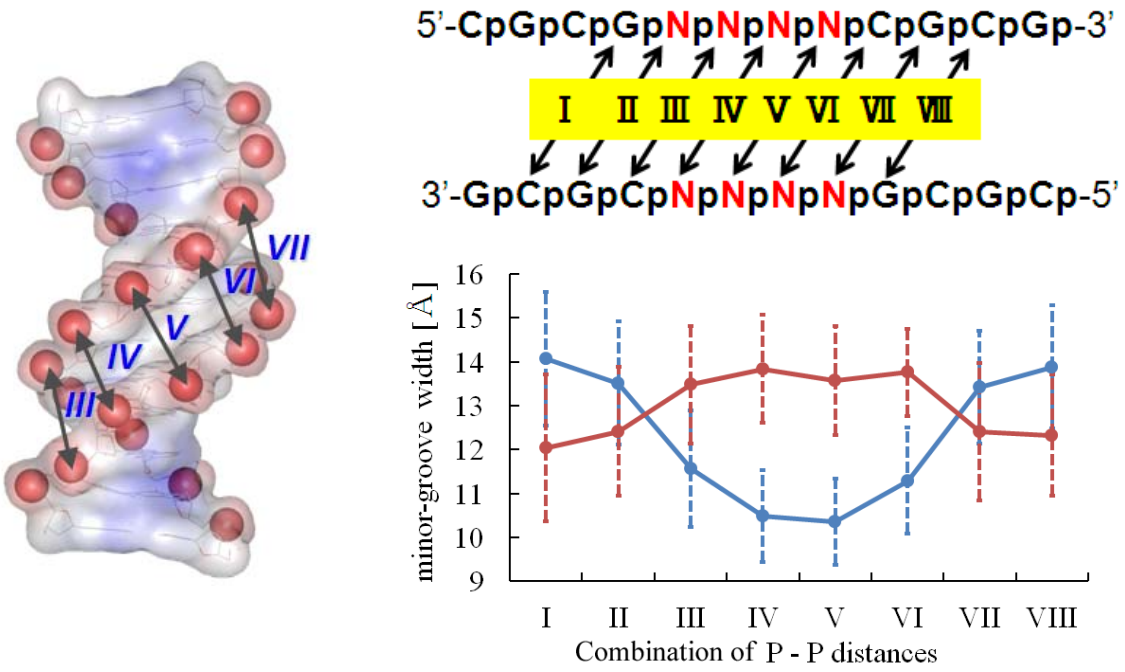


Fig. S7. Minor groove widths were defined as P-P distances of the phosphates in the two strands as shown above.