

Supplemental Data for:

Conformation of DNA GG intrastrand cross-link of antitumor oxaliplatin and its enantiomeric analog

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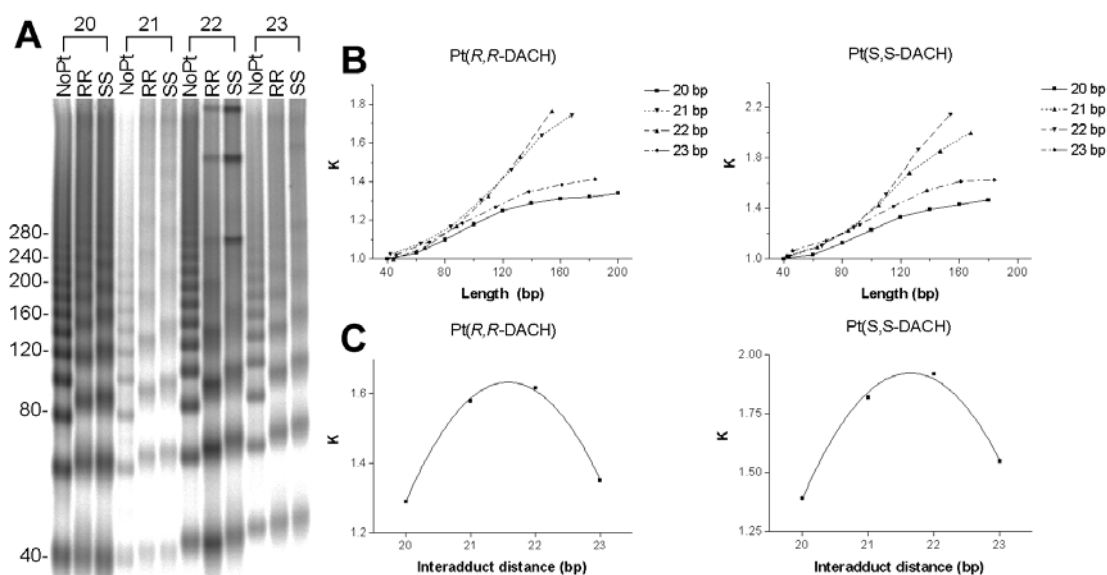


FIGURE S1 The mobility of the ligation products of 20-23 bp duplexes containing single, site-specific 1,2-GG intrastrand CL of [Pt(R,R-DACH)]²⁺ or [Pt(S,S-DACH)]²⁺ at the central sequence AGGC in an 8% PAA gel. (A) phosphorimage of the ligation products. Lanes: No Pt, unplatinated duplexes; RR, duplex containing the CL of [Pt(R,R-DACH)]²⁺; SS, duplex containing the CL of [Pt(S,S-DACH)]²⁺ (B) Plots showing the relative mobility K versus sequence length curves for the oligomers 20-23 bp long containing the CL of [Pt(R,R-DACH)]²⁺ (left) or [Pt(S,S-DACH)]²⁺ (right). (■), 20-mer; (▼), 21-mer; (▲), 22-mer; (●), 23-mer. (C) Plots showing the relative mobility K versus interadduct distance in bp for the oligomers 20-23 bp long containing the CL of [Pt(R,R-DACH)]²⁺ (left) or [Pt(S,S-DACH)]²⁺ (right) with a total length of 126 bp. The experimental points represent the average of three independent electrophoresis experiments. The curves represent the best fit of these experimental points to the equation $K = ad^2 + bd + c$ (Bellon, S.F., Coleman, J.H. and Lippard, S.J. (1991) DNA unwinding produced by site-specific intrastrand cross-links of the antitumor drug *cis*-diamminedichloroplatinum(II). *Biochemistry*, **30**, 8026-8035).

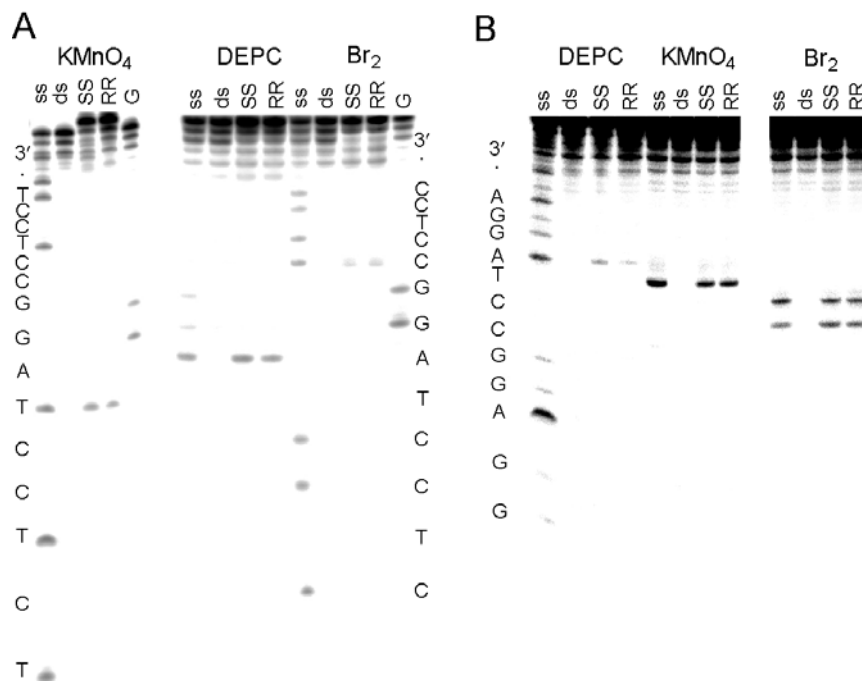


FIGURE S2 Chemical probes of DNA conformation. Piperidine-induced specific strand cleavage at KMnO₄-modified, KBr/KHSO₅-modified and DEPC-modified bases in the 23-bp duplex AGGC unplatinated or containing single, 1,2-GG intrastrand cross-link of [Pt(*R,R*-DACH)]²⁺ or [Pt(*S,S*-DACH)]²⁺. Lanes: ss, the unplatinated strand; ds, the unplatinated duplex; RR, the duplex containing a unique adduct of [Pt(*R,R*-DACH)]²⁺; SS, the duplex containing a unique adduct of [Pt(*S,S*-DACH)]²⁺ G, a Maxam-Gilbert specific reaction for the unplatinated duplex. The oligomers were 5'-end labeled at the top strand (A) or bottom (B) strand.