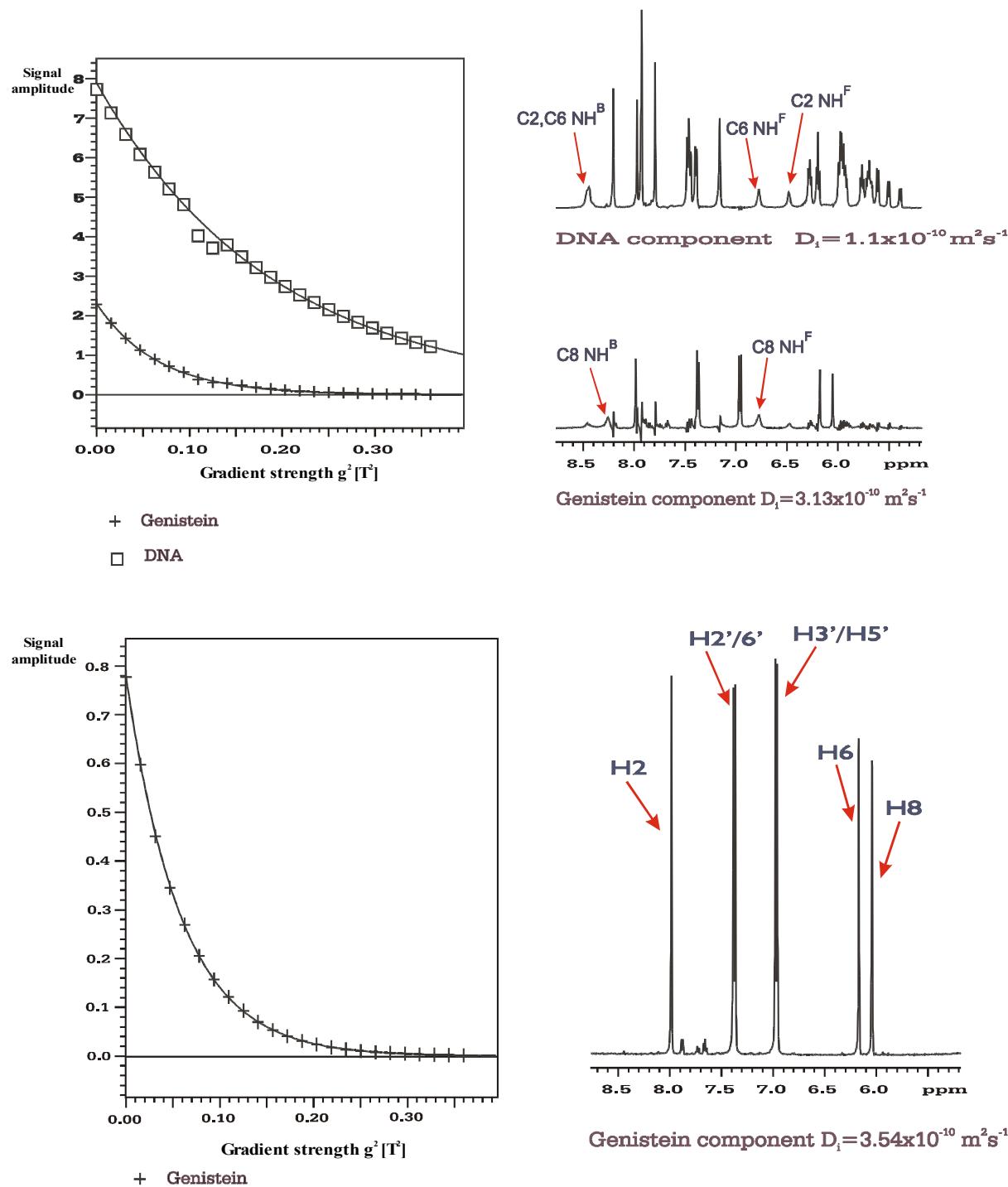


## Supplementary Information

**Fig. 1S** DECRA plot of fitting the DPFGSE experiment for the genistein, **1** (top), interaction with d(GCGATCGC)<sub>2</sub> octamer duplex (bottom). The two components are displayed separately.

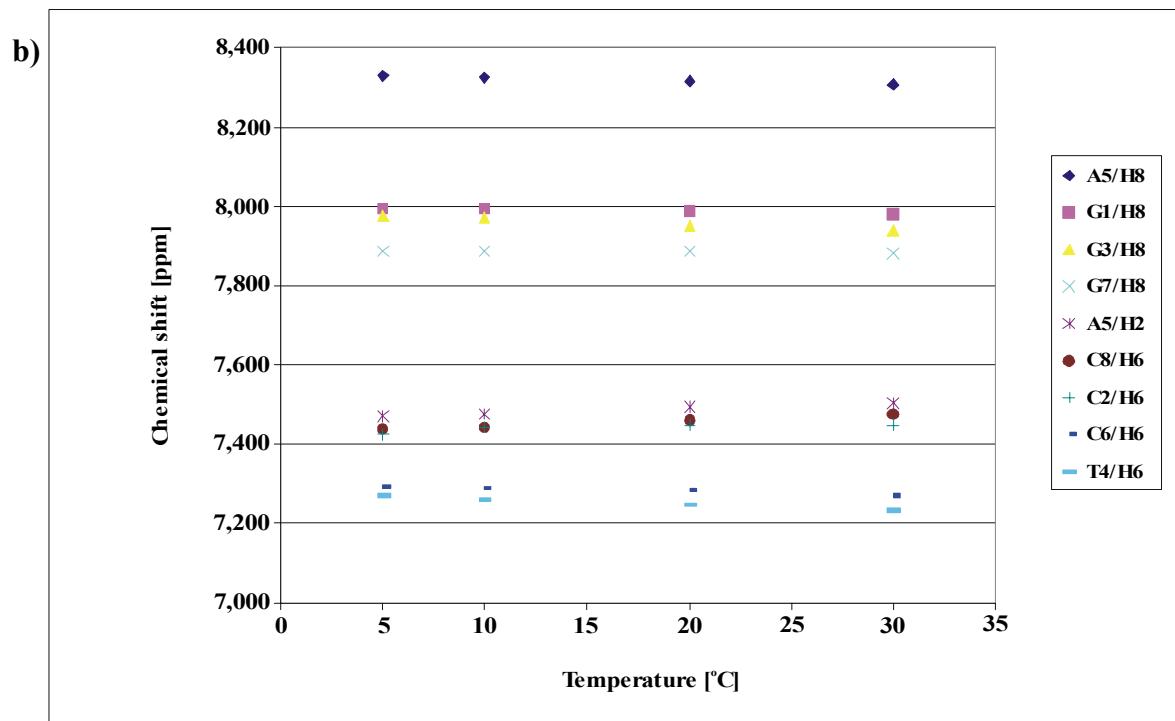
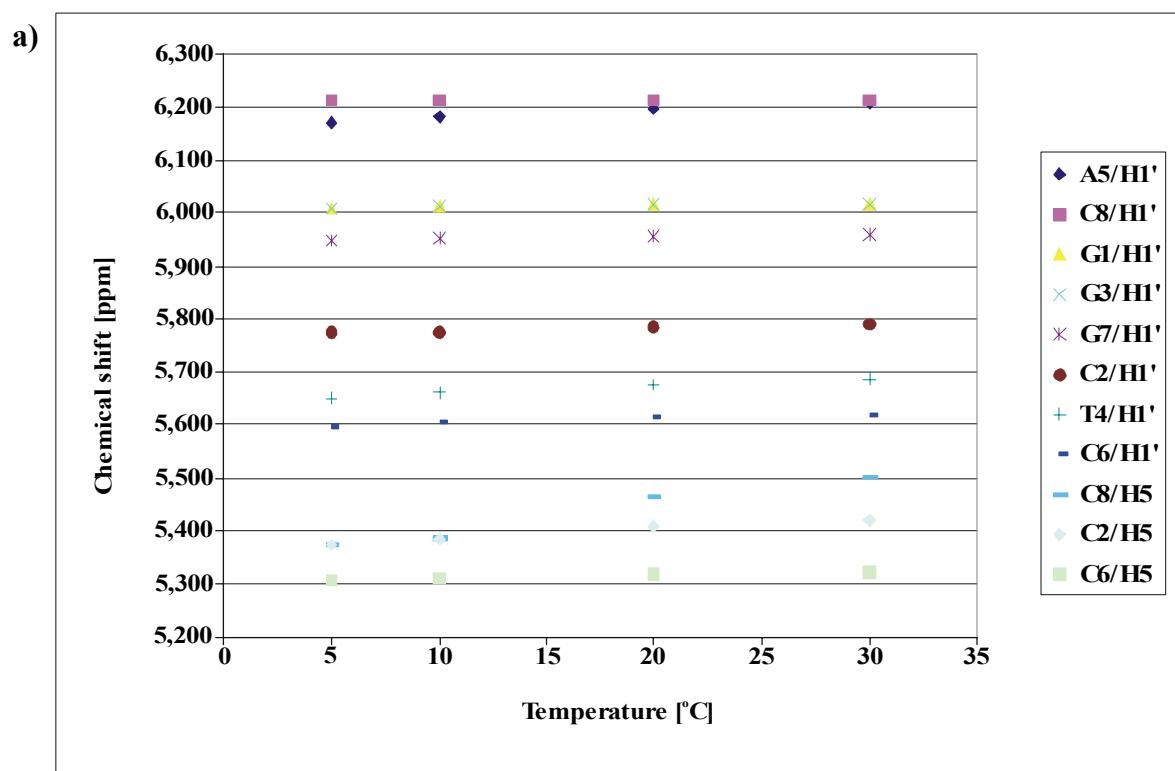


**Table 1S** DNMR results performed on d(GCGTACGC)<sub>2</sub> duplex DNA oligomer. Chemical shift are referenced vs. TSPA signal.

	<b>G1/H8</b>	<b>G1/H1'</b>	<b>C2/H6</b>	<b>C2/H1'</b>	<b>C2/H5</b>	<b>G3/H8</b>	<b>G3/H1'</b>	<b>T4/H6</b>	<b>T4/H1'</b>
<b>5°C</b>	7,994	6,010	7,426	5,773	5,373	7,977	6,010	7,269	5,650
<b>10°C</b>	7,995	6,013	7,445	5,775	5,387	7,969	6,013	7,260	5,660
<b>20°C</b>	7,990	6,017	7,448	5,785	5,407	7,952	6,017	7,247	5,677
<b>30°C</b>	7,979	6,017	7,446	5,791	5,421	7,936	6,017	7,233	5,689

	<b>A5/H8</b>	<b>A5/H1'</b>	<b>A5/H2</b>	<b>C6/H6</b>	<b>C6/H1'</b>	<b>C6/H5</b>	<b>G7/H8</b>	<b>G7/H1'</b>	<b>C8/H6</b>	<b>C8/H1'</b>	<b>C8/H5</b>
<b>5°C</b>	8,331	6,172	7,469	7,294	5,598	5,304	7,886	5,948	7,441	6,213	5,373
<b>10°C</b>	8,327	6,183	7,477	7,290	5,604	5,310	7,888	5,952	7,445	6,213	5,387
<b>20°C</b>	8,316	6,199	7,494	7,283	5,614	5,316	7,886	5,955	7,462	6,213	5,466
<b>30°C</b>	8,305	6,208	7,506	7,272	5,621	5,320	7,880	5,959	7,474	6,213	5,503

**Fig. 2S** Temperature dependence of chemical shifts of signals which appeared between **a)** 5.2 ~ 6.3 ppm, **b)** 7.0 ~ 8.4 ppm



**Fig. 3S** Dilution curves for the d(GCGTACGC)<sub>2</sub> duplex with DMSO-*d*<sub>6</sub>

