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## **Support Information for:**

## Correlations between Fluorescence Emission and Base Stacks of Nucleic Acid G-quadruplexes

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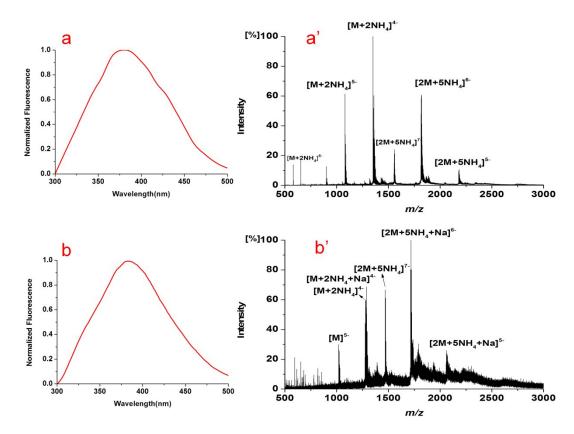


Figure S1. (a) Fluorescence spectrum of T30177; (a') Mass spectrum for T30177; (b) Fluorescence spectrum of NG16; (b') Mass spectrum for NG16;

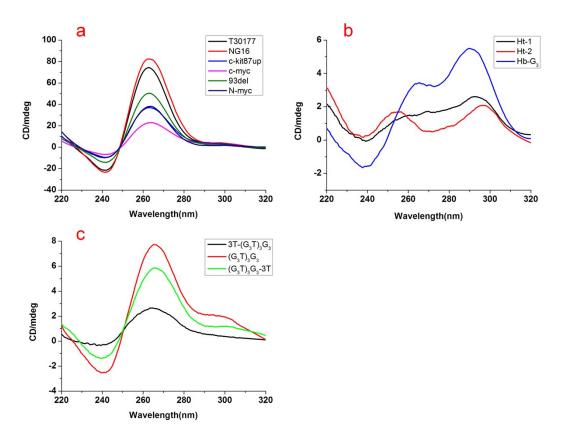


Figure S2. (a) CD spectra of partial parallel G-quadruplexes in Table 1, including N-myc sequence; (b) Hybrid (3+1) CD spectra; (c) CD spectra of sequences that are expected to form higher-ordered structures;

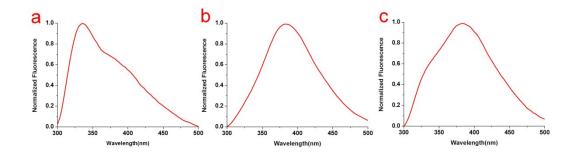


Figure S3. (a) Fluorescence spectrum of 93del; (b) Fluorescence spectrum of T30695; (c) Fluorescence spectrum for the mixture of 93del and T30695

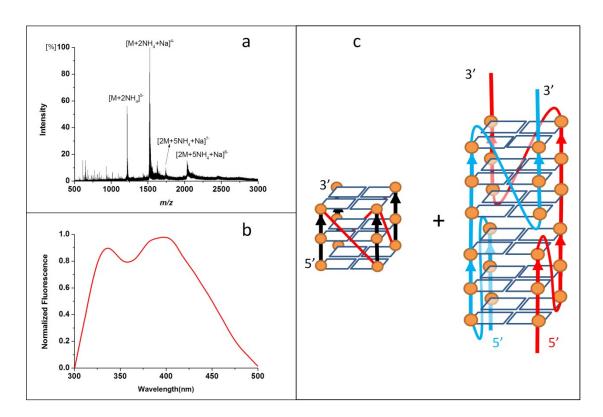


Figure S4. (a) Mass spectrum for N-myc; (b) Fluorescence spectrum for N-myc; (c) Schematic diagram of the N-myc monomers and parallel dimers.

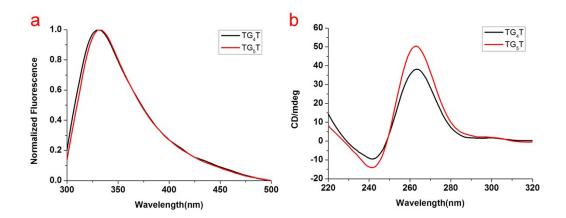


Figure S5. (a) Fluorescence spectra of  $TG_4T$  and  $TG_5T$ . (b) CD spectra of  $TG_4T$  and  $TG_5T$ . Since these two sequences were able to form tetramolecular G-quadruplexes, the strand concentration were 200  $\mu$ M and ion condition was 60 mM.