Modified a-b chimeric oligoDNA bearing a multi-conjugate of 2,2-bis(hydroxymethyl)propionic acid-anthraquinone-polyamine exhibited improved and stereo-nonspecific triplex-forming ability

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1. UV-melting curves of triplex at pH 6.5 (full-match)

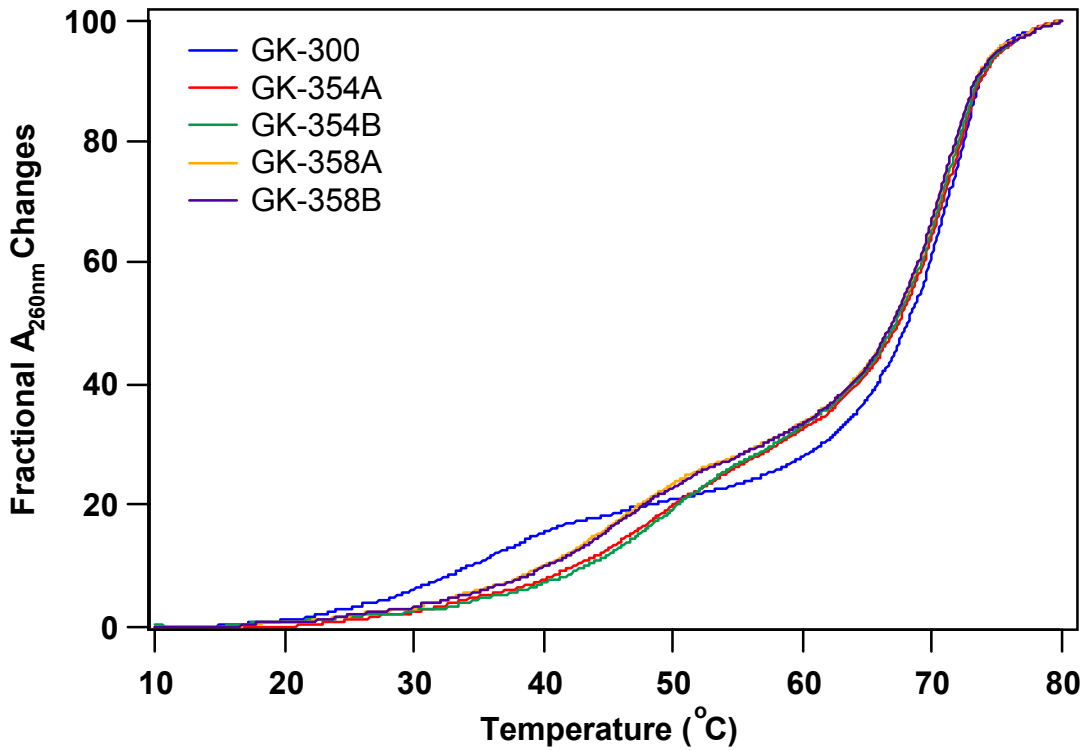

Fig. S1 UV-melting profile of the triple helicles at pH 6.5. The full-match duplex consisting of **ODN-2** and **ODN-3** (1.5 μM) was mixed with appropriate TFO (1.5 μM) in sodium cacodylate buffer (10 mM, pH 6.5) containing 100 mM NaCl, 1.0 mM spermine, and 10 mM $MgCl_2$. The temperature was raised at 0.1 °C/min and thermally induced transition of each mixture was monitored at 260nm.

2. UV-melting curves of triplex at pH 7.0 (full-match)

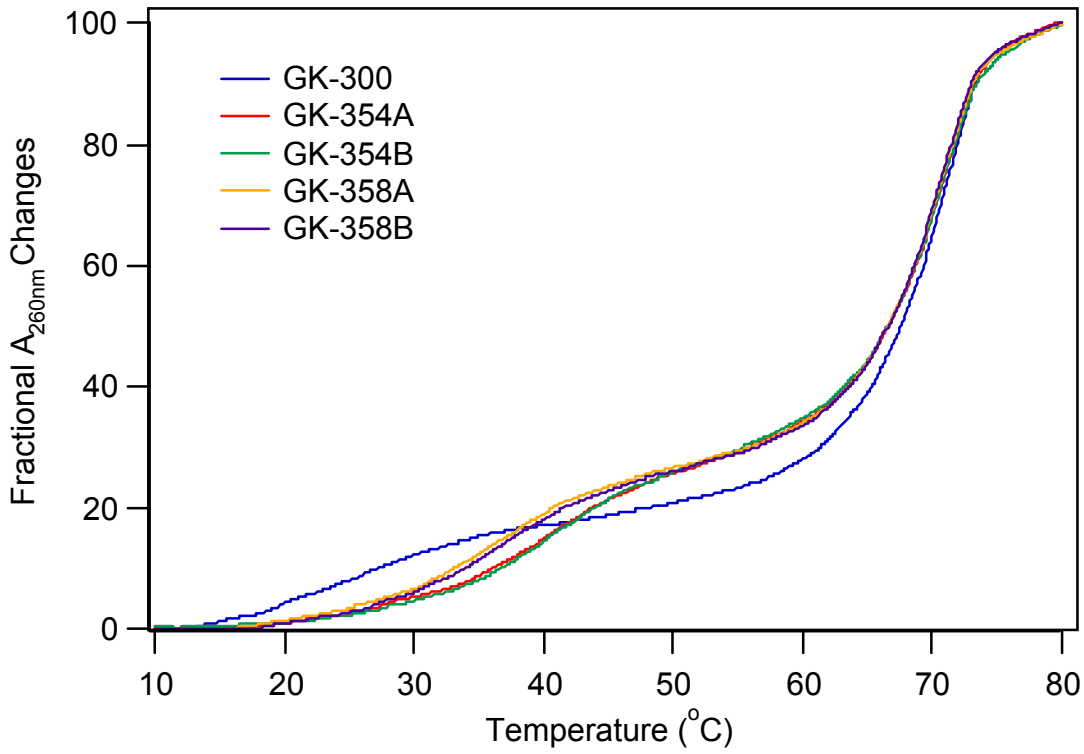

Fig. S2 UV-melting profile of the triple helicles at pH 7.0. The full-match duplex consisting of **ODN-2** and **ODN-3** (1.5 μM) was mixed with appropriate TFO (1.5 μM) in sodium cacodylate buffer (10 mM, pH 7.0) containing 100 mM NaCl, 1.0 mM spermine, and 10mM $MgCl_2$. The temperature was raised at 0.1 °C/min and thermally induced transition of each mixture was monitored at 260nm.

3. UV-melting curves of triplex at pH 6.5 (mismatch)

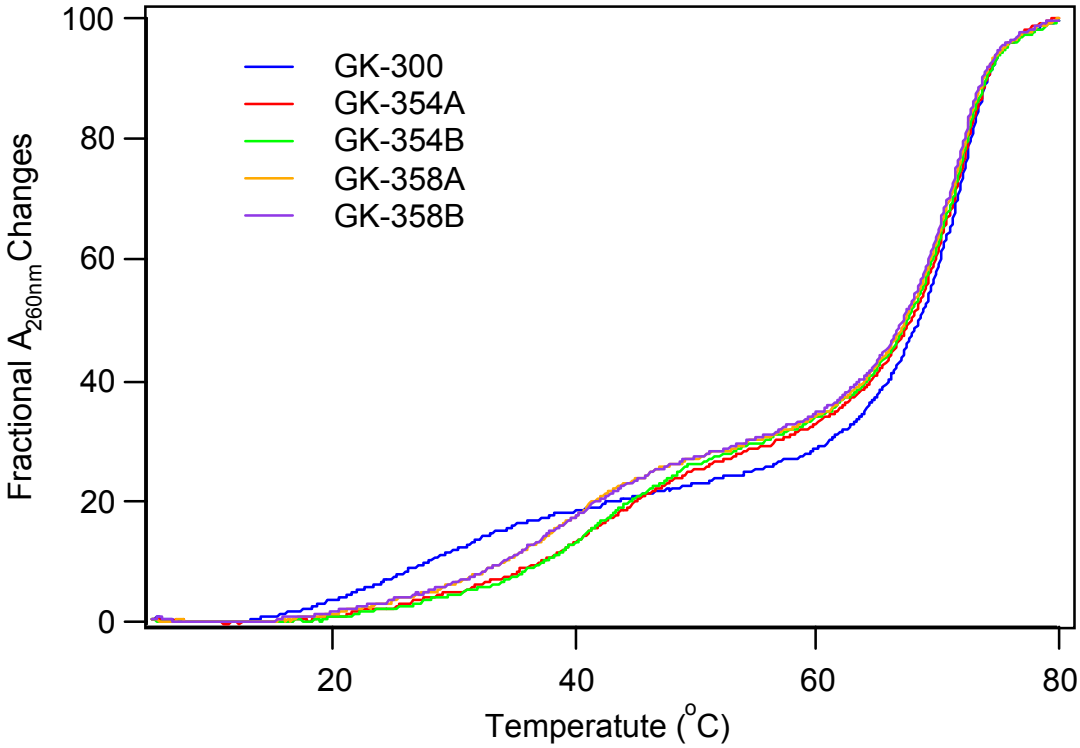

Fig. S3 UV-melting profiles of the triple helicles at pH 6.5. The mismatch duplex consisting of **ODN-4** and **ODN-5** (1.5 μM) was mixed with appropriate TFO (1.5 μM) in sodium cacodylate buffer (10 mM, pH 6.5) containing 100 mM NaCl, 1.0 mM spermine, and 10 mM $MgCl_2$. The temperature was raised at 0.1 °C/min and thermally induced transition of each mixture was monitored at 260nm.

4. UV-melting curves of triplex at pH 7.0 (mismatch)

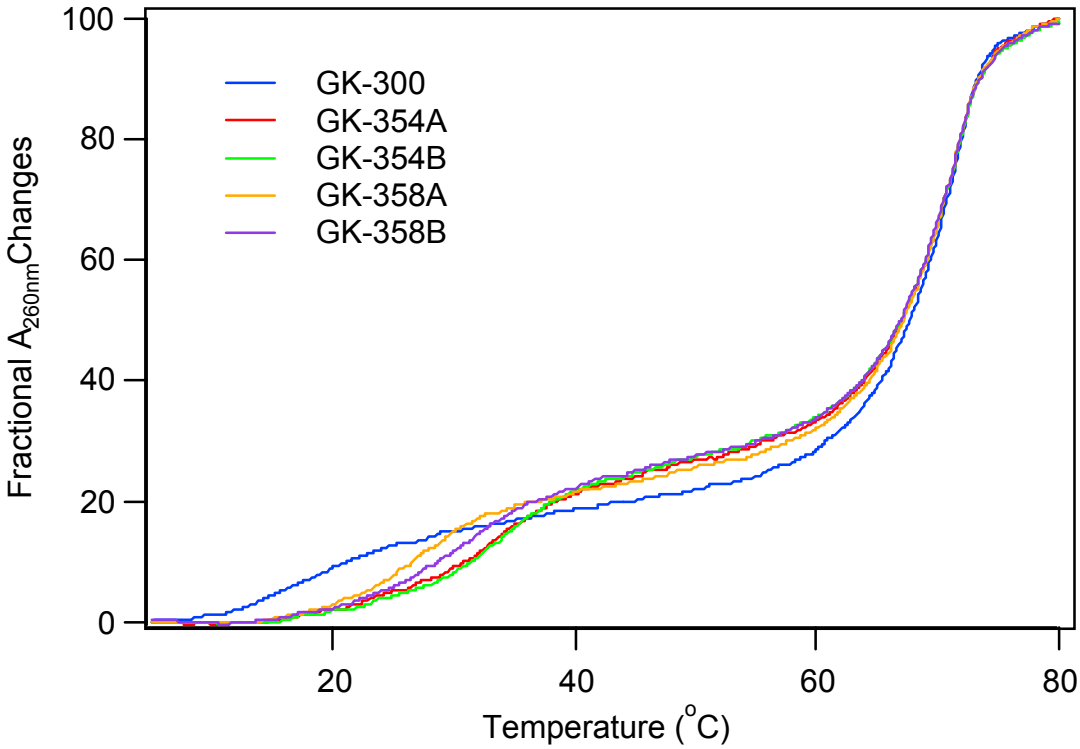

Fig. S4 UV-melting profiles of the triple helicles at pH 7.0. The mismatch duplex consisting of **ODN-4** and **ODN-5** (1.5 μM) was mixed with appropriate TFO (1.5 μM) in sodium cacodylate buffer (10 mM, pH 7.0) containing 100 mM NaCl, 1.0 mM spermine, and 10 mM $MgCl_2$. The temperature was raised at 0.1 °C/min and thermally induced transition of each mixture was monitored at 260nm.