Reversible circularization of an anthracene-modified DNA conjugate through bimolecular triplex formation and its analytical application

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The melting curve of the bimolecular triplex of the circular photoproduct, ant^ant18c, with fm7 is shown in Figure S1. Thermal stability was higher than that of the linear conjugate, 5-3ant^3ant18.

Figure S1 Melting curve of the ant^ant18c/fm7.
The melting curves of the control tandem duplexes are shown in Figure S2 and S3 for the longer (5ant15/fm30/3ant15 and 5ant15/mm30/3ant15) and shorter duplexes (5ant7/fm22/3ant15 and 5ant7/mm22/3ant15), respectively. While the both conjugates in the longer duplex, 5ant15/fm30/3ant15, melted almost simultaneously to give apparently monophasic melting, one-base substitution on mm30 destabilized the duplex of 5ant15 in 5ant15/mm30/3ant15 to change the curve to biphasic. For the shorter duplexes, while 5ant7/fm22/3ant15 showed a biphasic melting due to the difference in the length of both conjugates, the melting at lower temperature disappeared (decreased to lower than 0 °C) from the melting curve of 5ant7/mm22/3ant15.

**Figure S2** Melting curves of the 5ant15/fm30/3ant15 (left) and 5ant15/mm30/3ant15 (right), respectively.

**Figure S3** Melting curves of the 5ant7/fm22/3ant15 (left) and 5ant7/mm22/3ant15 (right), respectively.