

## Supplementary data

# Development of a Novel Fluorescence Assay Based on the Use of the Thrombin Binding Aptamer for the Detection of O<sup>6</sup>-alkylguanine–DNA Alkyltransferase Activity

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### CONTENTS:

**Figure S1.** UV spectra of MB-TBA at 20 and 80 °C.

**Figure S2.** UV spectra of MB-5-O<sup>6</sup>-MeG-TBA at 20 and 80 °C.

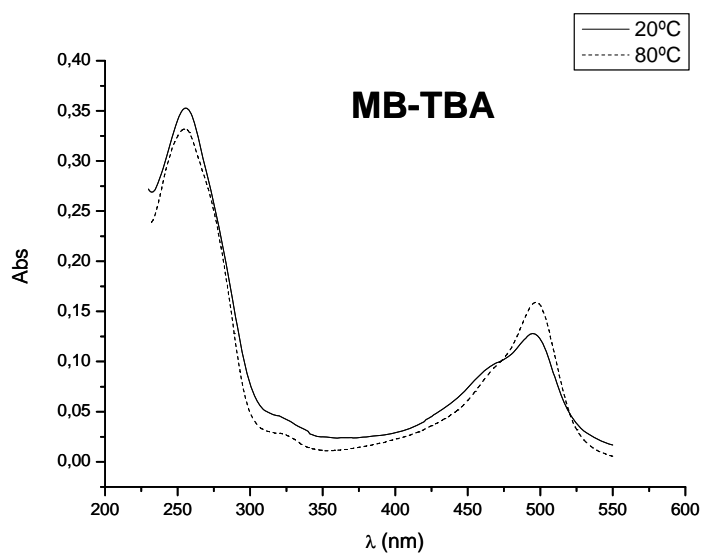
**Figure S3.** Melting curves of MB-TBA and MB-5-O<sup>6</sup>-MeG-TBA recorded at 295 nm.

**Figure S4.** Melting curves of MB-TBA and MB-5-O<sup>6</sup>-MeG-TBA recorded at 495 nm.

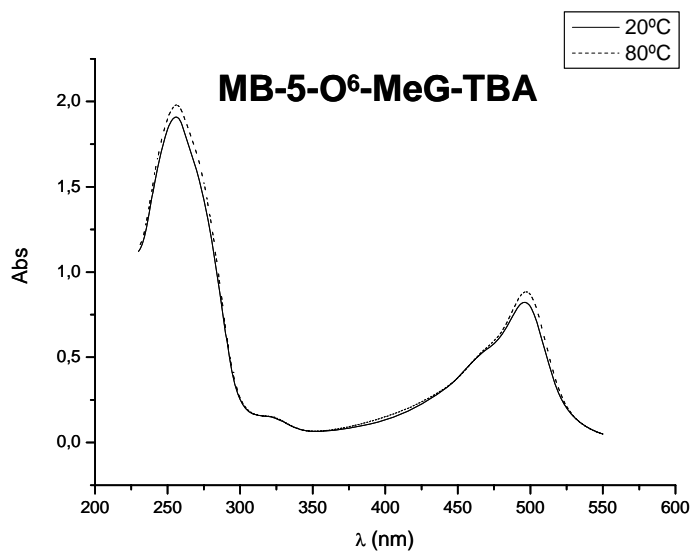
**Figure S5.** CD spectra of TBA, 5-O<sup>6</sup>-MeG-TBA and 5-O<sup>6</sup>-MeG-TBA.

**Figure S6.** CD spectra of TBA, 3HP-TBA, 6HP-TBA and 9HP-TBA.

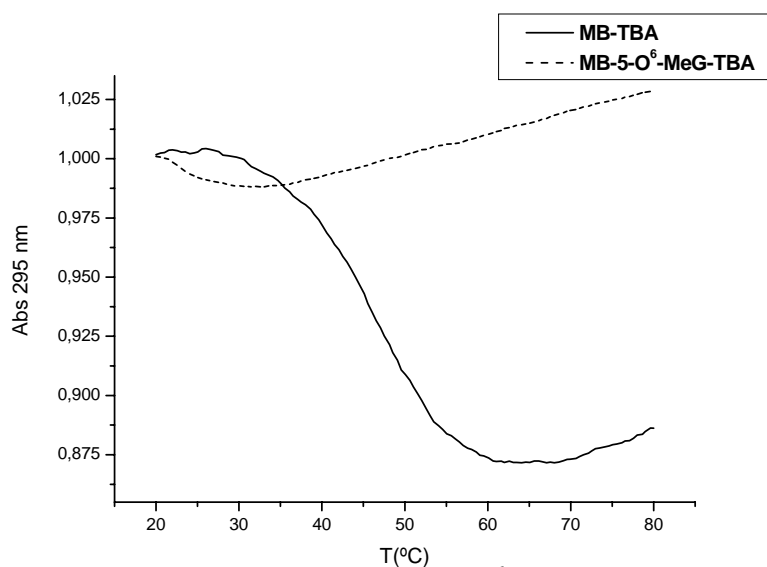
**Figure S1.** UV spectra of MB-TBA (5'-FAM-GGT TGG TGT GGT TGG-Dabsyl-3') at 20 and 80 °C.



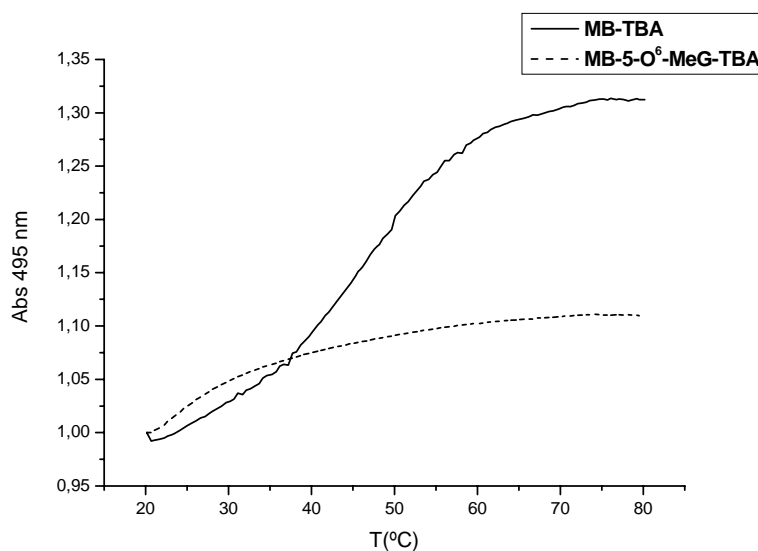
**Figure S2.** UV spectra of MB-5-O<sup>6</sup>-MeG-TBA (5'-FAM-GGT T<sup>Me</sup>GG TGT GGT TGG-Dabsyl-3') at 20 and 80 °C.



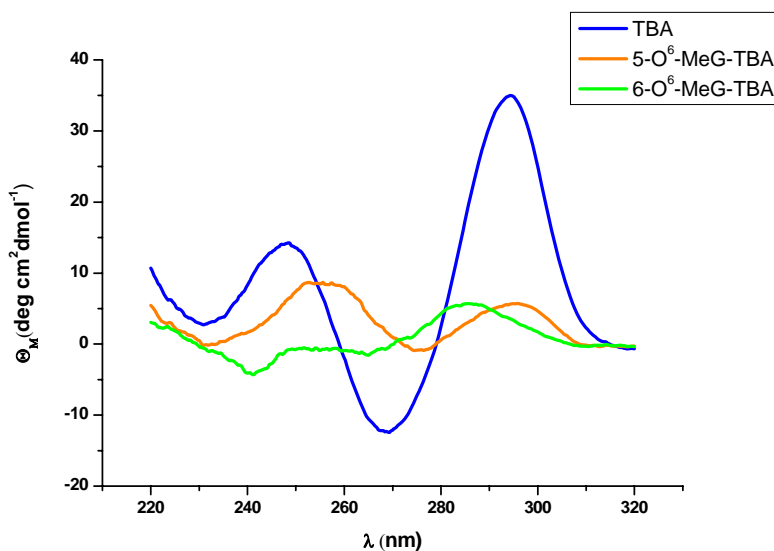
**Figure S3.** Melting curves of MB-TBA and MB-5-O<sup>6</sup>-MeG-TBA recorded at 295 nm. A quadruplex-to-random-coil transition is observed for the MB-TBA (T<sub>m</sub> = 46 °C). No transition was observed for MB-5-O<sup>6</sup>-MeG-TBA.



**Figure S4.** Melting curves of MB-TBA and MB-5-O<sup>6</sup>-MeG-TBA recorded at 495 nm. A quadruplex-to-random-coil transition is observed for the MB-TBA (T<sub>m</sub> = 46 °C). No transition was observed for MB-5-O<sup>6</sup>-MeG-TBA.



**Figure S5.** CD spectra of TBA, 5-O<sup>6</sup>-MeG-TBA and 5-O<sup>6</sup>-MeG-TBA recorded at 25 °C. Conditions 10 mM sodium cacodylate pH 7.0 and 100 mM KCl., sample concentration 4 μM.



**Figure S6.** CD spectra of TBA, 3HP-TBA, 6HP-TBA and 9HP-TBA recorded at 25 °C. Conditions 10 mM sodium cacodylate pH 7.0 and 100 mM KCl., sample concentration 4 μM.

