

Figure S1 Photooxidation of guanine-containing DNA oligomers under irradiation with a LED light source for 60mins. "\*" was not derived from DNA.

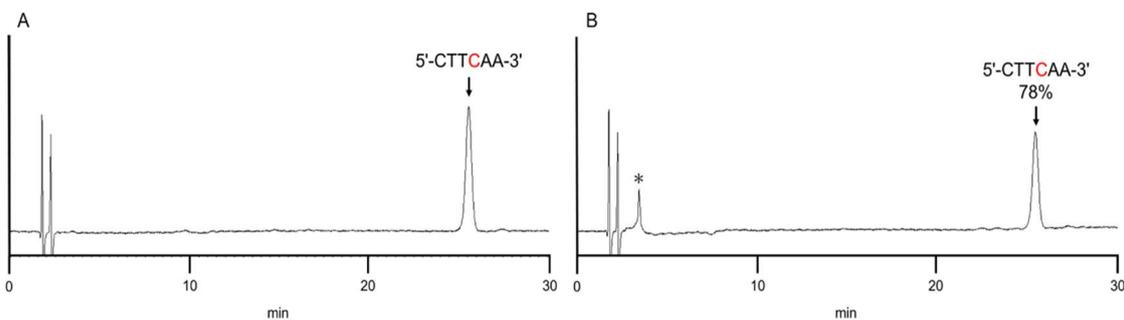


Figure S2 Photooxidation of cytosine-containing DNA oligomers under irradiation with a LED light source at an intensity of 51.2 mW/cm<sup>2</sup>. HPLC analysis (260 nm) of reaction solution after (A) no and (B) 2 min of irradiation. "\*" was not derived from DNA.

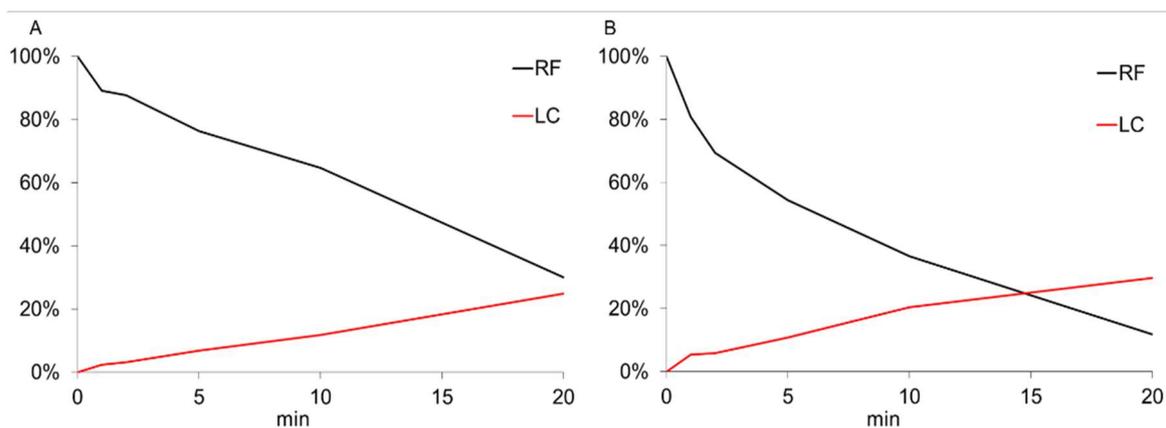


Figure S3 Photooxidation of riboflavin under irradiation with a LED light source for various reaction times. A solution was irradiated for various intervals with 450-nm light at an intensity of 13.8 mW/cm<sup>2</sup> (A) or with 365-nm light at an intensity of 25.6 mW/cm<sup>2</sup> (B).

Table S1 Photooxidation of guanine-containing DNA oligomers under irradiation with two LED light sources. The reaction solution consisted of 10  $\mu\text{M}$  5'-CTTGAA-3', 75  $\mu\text{M}$  lumichrome, and 5 mM cacodylate buffer (pH 7.0)/0.84% DMSO.

LED	mW/cm <sup>2</sup>	time (min)	Iz	G
365 nm	512	2	13%	4%
450 nm	275	2	0%	92%