JACS
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

ADDITION/CORRECTION

pubs.acs.org/JACS

Adenosine-1,3-diazaphenoxazine Derivative for Selective Base Pair Formation with 8-Oxo-2′-deoxyguanosine in DNA [*Journal of the American Chemical Society* **2011**, *133*, 7272–7275 DOI: 10.1021/ja200327u]. Yosuke Taniguchi, Ryota Kawaguchi, and Shigeki Sasaki*

Page 7273. The base pair combinations of G-C, A-T, oxo-G-C, and oxo-G-A in ODN1 and ODN2 in the original Table 1 should be reversed as shown below. The corresponding melting temperature in the text should also be corrected according to the data for these base pairs.

Table 1. Thermodynamic Parameters of the Duplex Formed between ODN1 and ODN2[a]

X in ODN1	Y in ODN2	T_m (°C)	$\Delta H°$ (kcal/mol)	$\Delta S°$ (cal K^{-1} mol^{-1})	$\Delta G°_{310K}$ (kcal/mol)
C	G	44.1	−100.7 ± 6	−288 ± 20	−11.3 ± 0.2
G	C	48.2	−114.7 ± 18	−328 ± 55	−13.1 ± 0.8
T	A	40.9	−90.3 ± 7	−259 ± 22	−10.1 ± 0.2
A	T	41.9	−92.9 ± 10	−266 ± 38	−10.4 ± 0.3
G	A	33.1	−94.6 ± 4	−280 ± 13	−7.8 ± 0.04
A	G	35.4	−71.1 ± 8	−201 ± 25	−8.7 ± 0.2
oxo-G	C	44.3	−98.3 ± 8	−281 ± 23	−11.3 ± 0.2
oxo-G	A	39.8	−91.4 ± 3	−263 ± 9	−9.7 ± 0.05
C	oxo-G	42.3	−96.8 ± 8	−278 ± 25	−10.6 ± 0.2
A	oxo-G	39.2	−96.1 ± 7	−279 ± 21	−9.6 ± 0.1

[a] The combination of dC and 8-oxo-dG showed a T_m of 42.3 °C, which is 1.8 °C lower than that of the corresponding natural CG pair (44.1 °C). This is probably because Watson−Crick base-pair formation involving dC requires the unfavorable anti conformation of 8-oxo-dG. On the other hand, the dA-8-oxo-dG combination provided a T_m value similar to that of the dA-dT base pair (T_m = 39.2 vs 41.9 °C) and a higher T_m value than that of the dA-dG pair (T_m = 39.2 vs 35.4 °C), because dA forms the base pair with the favorable syn conformation of 8-oxo-dG.

DOI: 10.1021/ja204536k
Published on Web 06/14/2011