

**Table S2.** Protein melting temperatures.

| Protein          | $T_m$ (°C)        |
|------------------|-------------------|
| BcAlkD           | 40.4 <sup>a</sup> |
| BcAlkD-Y27A      | 42.6 <sup>a</sup> |
| BcAlkD-K29A      | 42.1              |
| BcAlkD-Y27A/K29A | 45.3              |
| SmAlkD2          | 55.7              |

<sup>a</sup> Values were taken from E.A. Mullins, E.H. Robinson, and B.F. Eichman, The substrate binding interface of alkylpurine DNA glycosylase AlkD, DNA Repair 13 (2014) 50-54.