

Supplementary Data

Impact of cofactor-binding loop mutations on thermotolerance and activity of *E. coli* transketolase

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Fig. S1. Temperature dependence of the average holo-TK particle diameter as determined by dynamic light scattering for **A)** (x) wild type and variants in loop 1 (**▲**) H192P and (**Δ**) G186R/H192P, and **B)** (x) wild type and variants in loop 2 (**□**) L387N, (**○**) W390A, (**▼**) L387N/W390A/S392E, (**▽**) L387N/L389K/W390A/S392E. TK at 0.1 mg mL^{-1} ($1.38 \text{ }\mu\text{M}$) was incubated at $25 \text{ }^\circ\text{C}$ for 1 h in 25 mM Tris-HCl , $\text{pH } 7.0$, 5 mM MgCl_2 , 0.5 mM TPP prior to measurements. Temperature was increased at $1.0 \text{ }^\circ\text{C}$ per minute from 4 to $70 \text{ }^\circ\text{C}$ for each measurement of particle size distribution. Mean diameter (Z-ave) was calculated from the % intensity distribution at each temperature.

