

## Supplementary Material

### The carbon switch at the level of pyruvate and phosphoenolpyruvate in *Sulfolobus solfataricus* P2

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#### \* Correspondence:

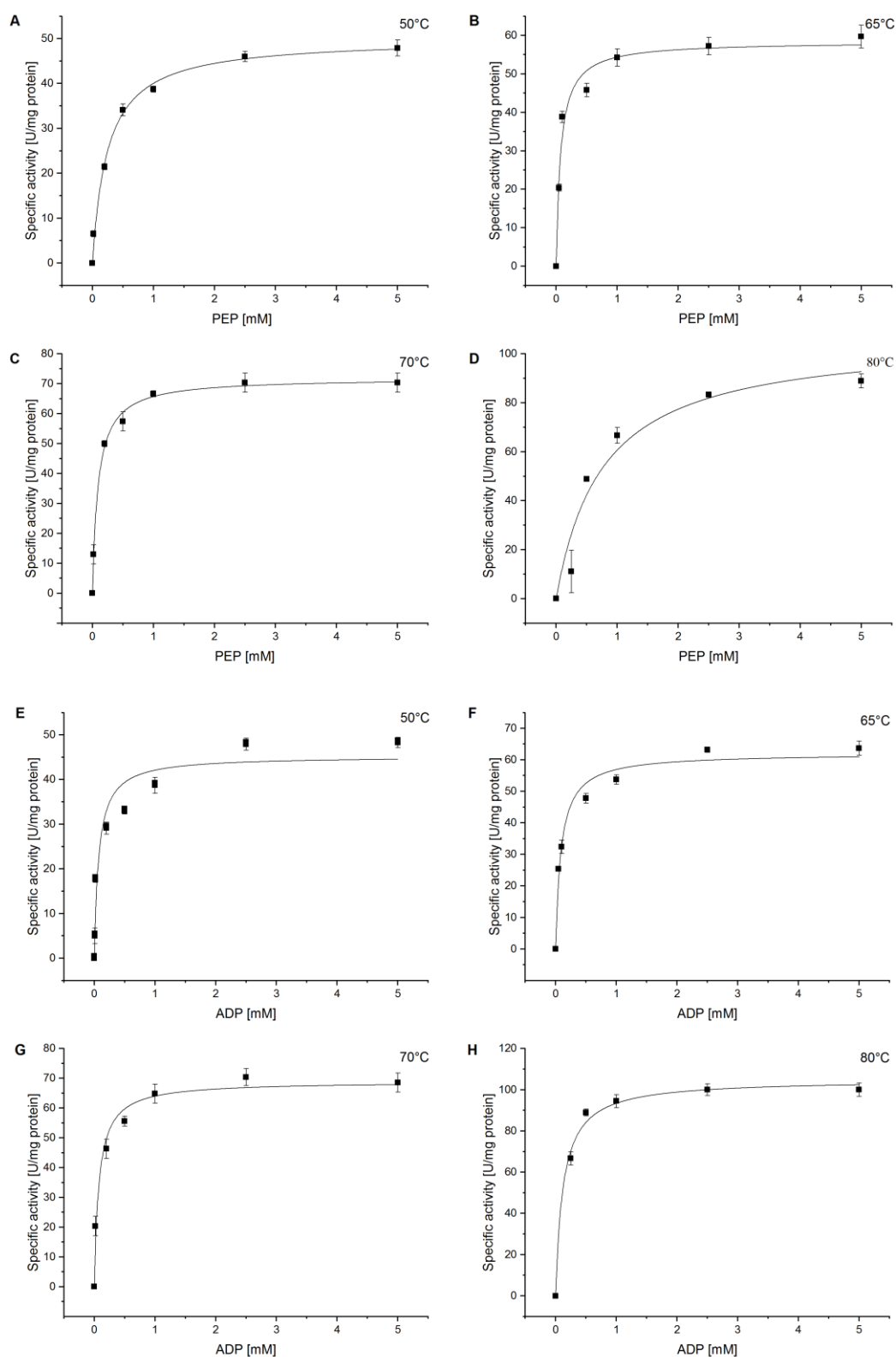
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#### 1. Supplementary Data

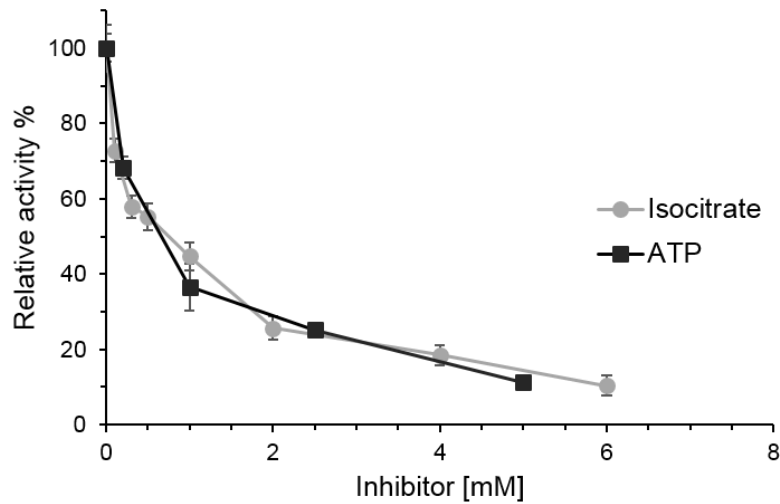
##### Gene sequence of the codon optimized PEPS (SSO0883) for expression in *Escherichia coli*:

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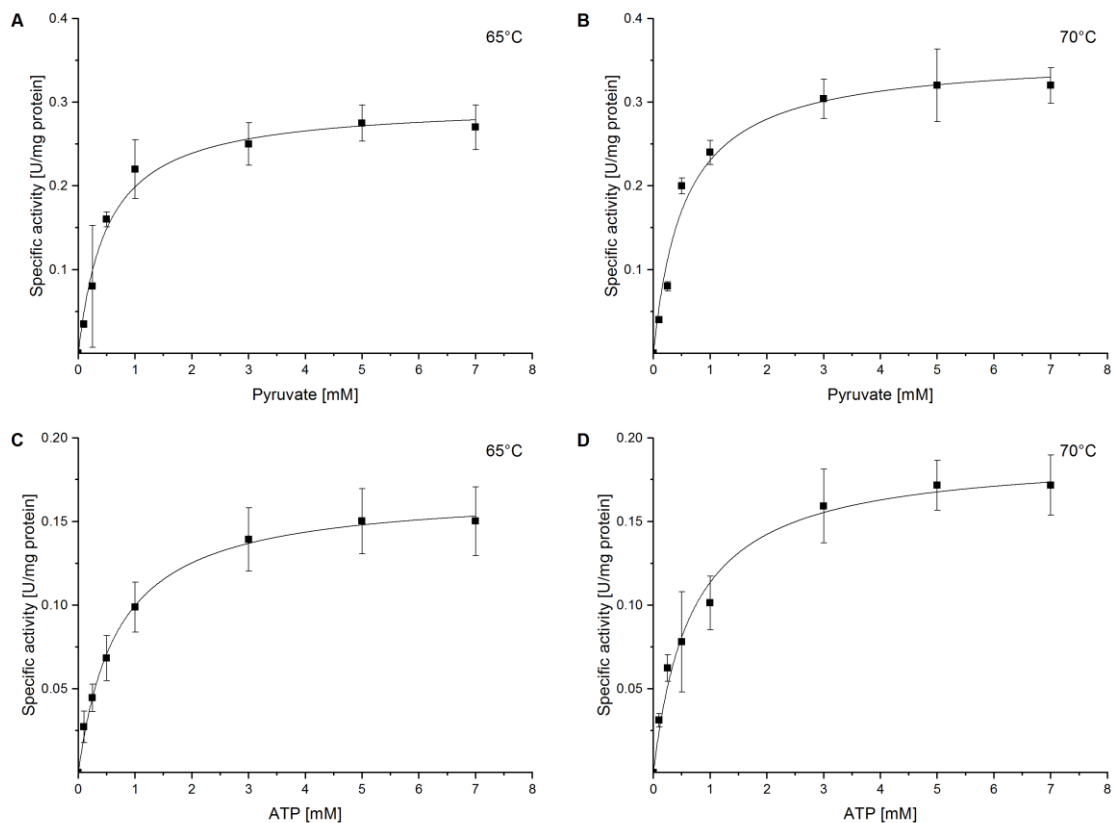
## 2. Supplementary Figures and Tables



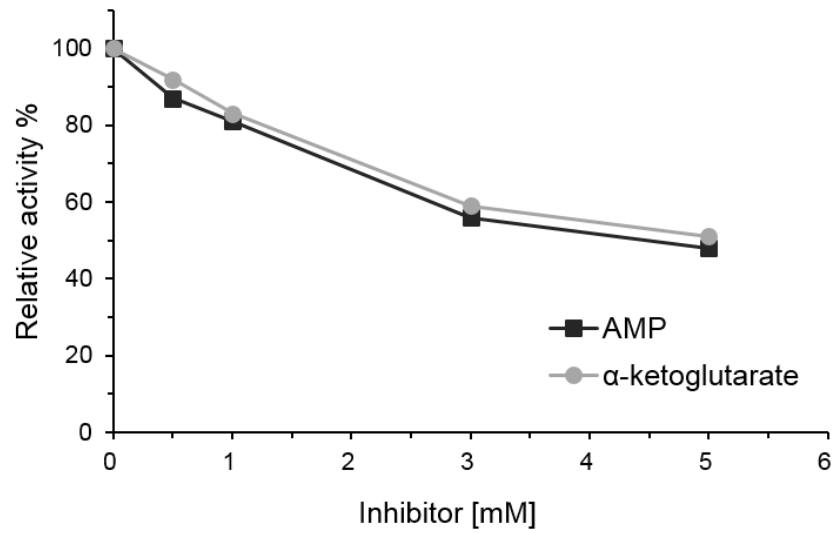
**Supplementary Figure 1.** Characterization of PK from *Sul. solfataricus*. PK activity with PEP (A-D) and ADP (E-H) was determined at 50°C, 65°C, 70°C and 80°C. All measurements were performed in triplicate, the points in the figures are the mean values and the error bars indicate the standard deviation.



**Supplementary Figure 2.** Regulation of PK activity. The inhibition of PK activity by ATP and isocitrate was determined at half-saturating concentration of ADP and PEP at 60°C. All measurements were performed in triplicate, the points in the figures are the mean values and the error bars indicate the standard deviation.



**Supplementary Figure 3.** Characterization of PEPS from *Sul. Solfataricus*. PEPS activity with pyruvate (A and B) and ATP (C and D) was determined at 65°C and 70°C. All measurements were performed in triplicate, the points in the figures are the mean values and the error bars indicate the standard deviation.



**Supplementary Figure 4.** Regulation of PEPS activity. The inhibition of PEPS activity by AMP and  $\alpha$ -ketoglutarate was determined at half-saturating concentration of ATP and pyruvate at 70°C.