

## Supplementary Data

### Distinct GDP/GTP Bound States of the Tandem G-Domains of EngA Regulate Ribosome Binding

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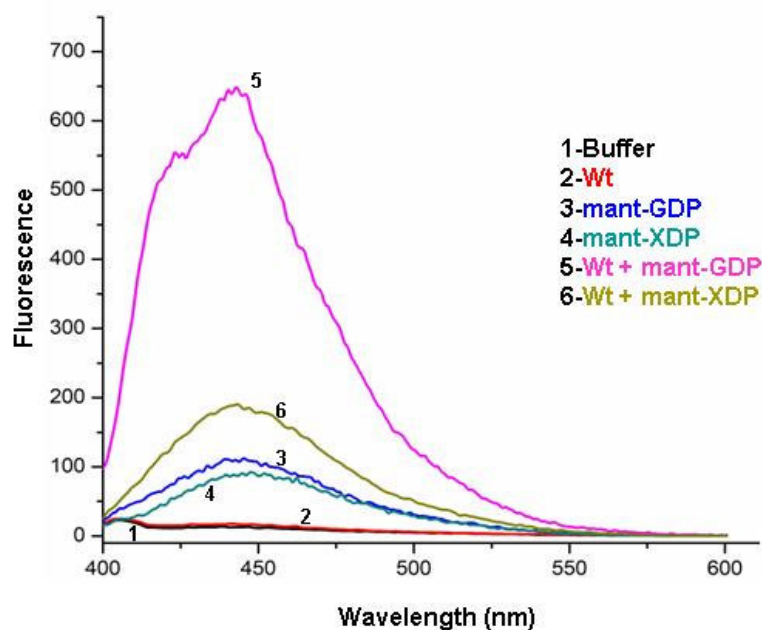


Fig.S1. **Nucleotide binding to wt EngA (*E.coli*)**. Nucleotide binding was assayed by recording emission spectra ( $\lambda_{ex}$  355 nm) upon incubating 8  $\mu$ M of *E.coli* EngA with 0.4  $\mu$ M fluorescent mant-nucleotides (mant-GDP or mant-XDP). Spectra corresponding to various nucleotide bound forms of the protein are indicated in different colors and numbers, Emission spectra indicate that wt EngA binds preferentially to mant-GDP.

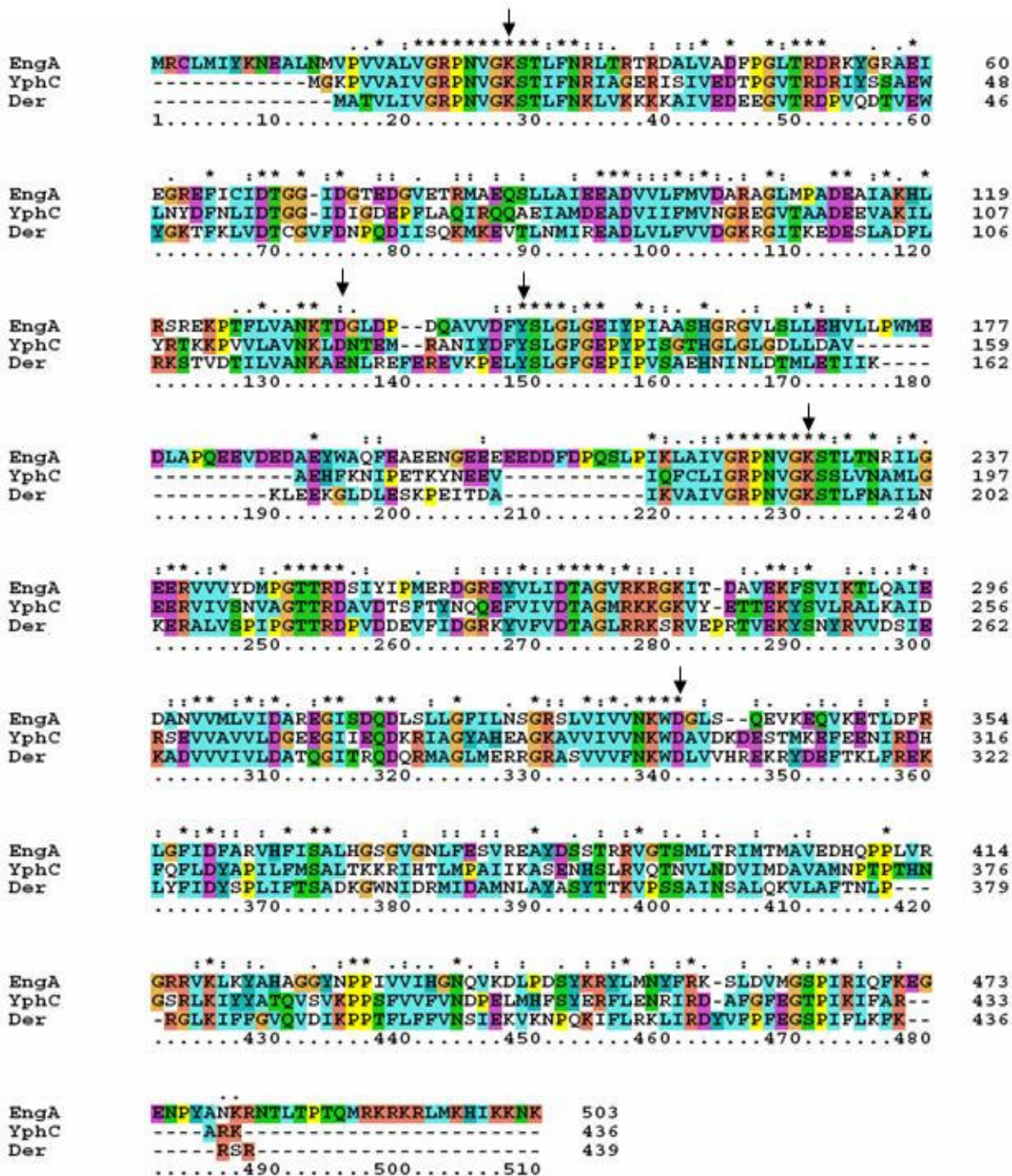


Fig.S2. Multiple sequence alignment of EngA (*E. coli*), YphC (*B. subtilis*) and Der (*T. maritima*). Sequences were aligned using Clustalx (1). The residues mutated in this study are indicated by arrows. Residues are 1 – 207 and 217 – 385 constitute the domains GD1 and GD2 of EngA.

**References:**

1. Thompson, J. D., Gibson, T. J., Plewniak, F., Jeanmougin, F. and Higgins, D.G. (1997) The CLUSTAL\_X windows interface: flexible strategies for multiple sequence alignment aided by quality analysis tools. *Nucl. Acids Res.*, **25**, 4876-4882.