

# Supplementary Materials: Structural Insights into *Thermotoga maritima* FtsH Periplasmic Domain on Substrate Recognition

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**Table S1. Summarized DALI<sup>c</sup> search results**

<b>Protein</b>	<b>PDB Code</b>	<b>Z-score<sup>a</sup></b>	<b>RMSD (Å)<sup>b</sup></b>	<b>Alignment length<sup>c</sup> (residues)</b>	<b>Identity (%)<sup>d</sup></b>
<b>FACT POB 3 (chain A)</b>	3F5R	4.1	2.5	58	17
<b>SRP 14 (chain B)</b>	2W9J	3.9	3.2	59	10
<b>IL-8 (chain A)</b>	1ICW	3.4	2.6	48	17
<b>NAP-2 (chain C)</b>	1NAP	3.5	2.6	49	14
<b>Platelet Factor 4 (chain D)</b>	1F9Q	3.5	2.5	48	19

**a:** Normalized score that depends on the size of the structures.

**b:** Root-mean-square deviation of C-alpha atoms in the least-squares superimposition of the structurally equivalent C-alpha atoms.

**c:** Number of structurally equivalent residues.

**d:** Percentage of identical amino acids over all structurally equivalent residues.

**e:** DALI server ([http://ekhidna.biocenter.helsinki.fi/dali\\_server/](http://ekhidna.biocenter.helsinki.fi/dali_server/))

**Table S2. Calculated isoelectric points of FtsH and its domains<sup>a</sup>**

<b>Species</b>	<b>Full</b>	<b>1-TM1/TM1</b>	<b>PD</b>	<b>TM2</b>	<b>ATP domain</b>	<b>Protease domain</b>	<b>No of a.a.</b>
<i>Thermotoga maritima</i>	5.93	12/9.75	<b>4.82</b>	5.52	6.99	5.47	610
<i>Thermus thermophilus</i>	6.12	9.50/5.52	4.85	5.57	6.92	5.89	624
<i>Bacillus subtilis</i>	5.92	9.98/5.18	5.75	5.49	6.98	5.39	637
<i>Helicobacter pylori</i>	6.02	9.70/5.96	6.94	3.80	6.87	5.34	632
<i>Escherichia coli</i>	5.91	8.50/5.52	<b>5.37</b>	5.52	7.73	5.46	644
<i>Aquifex aeolicus</i>	5.60	5.75/4.00	6.48	5.52	5.96	5.31	634
<i>Streptococcus pneumoniae</i>	5.38	9.82/5.95	5.07	5.52	5.27	5.29	652
<i>Cyanidium caldarium</i>	8.98	10.18/5.52	5.20	5.49	9.36	7.15	614
<i>Caulobacter crescentus</i>	6.13	9.50/5.52	9.40	5.52	7.81	5.15	626
<i>Synechocystis</i> sp.	5.31	11.0/5.24	4.93	5.52	5.56	5.02	616

a: 1-TM1 denotes the TM1, including all N-terminal residues.

Domain region was determined from the UniProtKB database ([www.expasy.org](http://www.expasy.org)).

Isoelectric points were calculated using ProtParam tool ([web.expasy.org/protparam/](http://web.expasy.org/protparam/)).