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## Recombinant *Escherichia coli* Thymidine Phosphorylase

**REP0064**

**5000 U  $\geq$  600 units/ml**

### Description

Thymidine phosphorylase (TYMP) is an enzyme involved in pyrimidine metabolism; the enzymes which catalyze the reversible phosphorolysis of pyrimidine nucleosides are involved in the degradation of these compounds and in their utilization as carbon and energy sources, or in the rescue of pyrimidine bases for nucleotide synthesis. Defects in TYMP are the cause of mitochondrial DNA depletion syndrome type 1 (MTDPS1) also known as myoneurogastrointestinal encephalomyopathy, a multisystem disease associated with mitochondrial dysfunction. It is clinically characterized by onset between the second and fifth decades of life, ptosis, progressive external ophthalmoplegia, gastrointestinal dysmotility (often pseudoobstruction), diffuse leukoencephalopathy, thin body habitus, peripheral neuropathy, and myopathy. Thymidine phosphorylase (TYMP) is identical with an angiogenic factor, platelet-derived endothelial cell growth factor (PD-ECGF). TYMP is overexpressed in various tumors and plays an important role in angiogenesis, tumor growth, invasion and metastasis.

### Product type

Recombinant protein

### Expression system

*Escherichia coli*

### Peptide

Recombinant full length protein: *E. coli* thymidine phosphorylase – Accession number: **WP\_000477811**

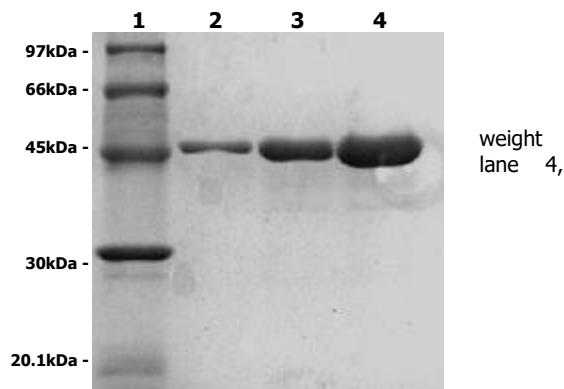
### Tested by

SDS Page, Western Blotting, Enzymatic activity

### Purity

>95% pure estimated by SDS-PAGE (EU Ph. 5.0 § 2.5.31)

Purified recombinant thymidine phosphorylase protein (lane 1, molecular standard; lane 2, 1 $\mu$ g; lane 3, 2.5 $\mu$ g; 5 $\mu$ g) was separated by SDS-PAGE (12% polyacrylamide) and stained with Coomassie Blue.



### Form

Liquid

### Storage buffer

20mM K<sub>2</sub>HPO<sub>4</sub>/NaH<sub>2</sub>PO<sub>4</sub> pH 7.5; 140mM NaCl; 3mM MSH; 10% glycerol.

### Storage instructions

Shipped on dry ice. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.