



Recombinant Protein Technical Manual  
Recombinant Human Thymidylate Kinase/DTYMK  
Protein (His Tag)  
RPES0808

### Product Data:

**Product SKU:** RPES0808

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P23919

### Protein Information:

**Molecular Mass:** 24.9 kDa

**AP Molecular Mass:** 20 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping:** This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Thymidylate kinase; dTMP kinase; DTYMK; CDC8; TMPK; TYMK

## Immunogen Information:

**Sequence:** Met 1-Lys212

## Background:

Thymidylate kinase (DTYMK) is a ubiquitous enzyme of about 25 kD which belongs to thymidylate kinase family. DTYMK is important in the dTTP synthesis pathway for DNA synthesis. It participated in the pyrimidine metabolism pathway and dTTP biosynthesis pathway. DTYMK catalyzes the conversion of dTMP to dTDP and catalyzes the phosphorylation of thymidine 5'-monophosphate (dTMP) to form thymidine 5'-diphosphate (dTDP) in the presence of ATP and magnesium. Structural and functional analyses suggest that the cDNA codes for authentic human dTMP kinase. The mRNA levels and enzyme activities corresponded to cell cycle progression and cell growth stages.