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## 32-8444: Recombinant Human Thymidine Kinase, Cytosolic/TK1 (C-6His)

**Gene ID:** 7083 **Uniprot ID:** P04183

## **Description**

Source: Human Cells.

MW:26.5kD.

Recombinant Human Thymidine kinase 1 is produced by our Mammalian expression system and the target gene encoding Met1-Asn234 is expressed with a 6His tag at the C-terminus. Thymidine kinase 1(TK1) belongs to the thymidine kinase family. It is located in the cytoplasm, and phosphorylated on Ser-13 in mitosis during post-translational modification. Two forms of this protein have been identified in animal cells, one in cytosol TK1 and one in mitochondria TK2. Thymidine kinases have a key function in the synthesis of DNA and thereby in cell division, as they are part of the unique reaction chain to introduce deoxythymidine into the DNA. Activity of the cytosolic enzyme is high in proliferating cells and peaks during the Sphase of the cell cycle, while it is very low in resting cells. TK1 acts as a homotetramer, and can transform thymidime to thymidine 5'-phosphate with the help of ATP

## **Product Info**

**Amount:**  $10 \mu g / 50 \mu g$ 

**Content:** Supplied as a 0.2 µm filtered solution of PBS,pH7.4.

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

Amino Acid: MSCINLPTVLPGSPSKTRGQIQVILGPMFSGKSTELMRRVRRFQIAQYKCLVIKYAKDTRYSSSFCTHDRNTMEA

LPACLLRDVAQEALGVAVIGIDEGQFFPDIVEFCEAMANAGKTVIVAALDGTFQRKPFGAILNLVPLAESVVKLTAVCMECFREAAYTKRLGTEKEVEVIGGADKYHSVCRLCYFKKASGQPAGPDNKENCPVPGKPGEAVAARKLFAP

QQILQCSPANVDHHHHHH

## **Application Note**

 $\textbf{Endotoxin:} \ Less \ than \ 0.1 \ ng/\tilde{A} \square \hat{A} \mu g \ (1 \ IEU/\tilde{A} \square \hat{A} \mu g) \ as \ determined \ by \ LAL \ test.$