

Active Recombinant Human TK1 Protein, His-tagged

Cat. No. TK1-08H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TK1 Protein, fused to His-tag, was expressed in E. coli.
Species	Human
Source	E.coli
Description	The protein encoded by this gene is a cytosolic enzyme that catalyzes the addition of a gamma-phosphate group to thymidine. This creates dTMP and is the first step in the biosynthesis of dTTP, which is one component required for DNA replication. The encoded protein, whose levels fluctuate depending on the cell cycle stage, can act as a low activity dimer or a high activity tetramer. High levels of this protein have been used as a biomarker for diagnosing and categorizing many types of cancers.
Form	Supplied as a 0.2 µm filtered solution in Tris, NaCl, Glycerol, Brij-30 and DTT.
Bio-activity	Measured by its ability to phosphorylate thymidine. The specific activity is >550 pmol/min/µg
Molecular Mass	Predicted Molecular Mass: 26 kDa SDS-PAGE: 25-30 kDa, reducing conditions
N-terminal Sequence Analysis	Ser2 & Cys3
Endotoxin	<0.1 EU per 1 µg of the protein by the LAL method.

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Purity	>80%
Applications	Enzyme Activity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -70 centigrade as supplied. 3 months, -70 centigrade under sterile conditions after opening.
Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

GENE INFORMATION

Gene Name	TK1 thymidine kinase 1 [Homo sapiens (human)]
Official Symbol	TK1
Synonyms	EC 2.7.1.21; TK1; TK2; Thymidine Kinase 1; thymidine kinase 1 soluble isoform; thymidine kinase 1; thymidine kinase; cytosolic; thymidine kinase-1
Gene ID	7083
mRNA Refseq	NM_003258
Protein Refseq	NP_003249
MIM	188300
UniProt ID	P04183

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