

Recombinant Human Thymidine Kinase 1, Soluble, His-tagged

Cat. No. TK1-1342H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human TK1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography.
Species	Human
Source	E.coli
ProteinLength	1-234aa
Description	TK1 is an enzyme, a phosphotransferase (a kinase): 2"-deoxythymidine kinase, ATP-thymidine 5"-phosphotransferase. It is present in two forms in mammalian cells, TK1 and 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.
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 0.1M NaCl, 1mM DTT.
Molecular Mass	28.0 kDa (258aa) confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SGLVPRGSH MGS HMSCINL PTVLPGSPSK TRGQIQVILG PMFSGKSTEL MRRVRRFQIA QYKCLVIKYA KDTRYSSSFC THDRNTMEAL PACLLRDVAQ EALGVAVIGI DEGQFFPDIV EFCEAMANAG KTVIVAALDG TFQRKPFGAI LNLVPLAESV VKLTAVCMEC FREAAAYTKRL GTEKEVEVIG GADKYHSVCR LCYFKKASGQ PAGPDNKENC PVPGKPGAEV AARKLFAPQQ ILQCSPAN

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Purity	>90% by SDS - PAGE
Applications	SDS-PAGE
Storage	Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -72°C. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/ml (determined by Bradford assay)
GENE INFORMATION	
Gene Name	TK1 thymidine kinase 1, soluble [Homo sapiens]
Official Symbol	TK1
Synonyms	TK1; thymidine kinase 1, soluble; thymidine kinase, cytosolic; thymidine kinase-1; thymidine kinase 1 soluble isoform; TK2;
Gene ID	7083
mRNA Refseq	NM_003258
Protein Refseq	NP_003249
MIM	188300
UniProt ID	P04183
Chromosome Location	17q23.2-q25.3
Pathway	Drug metabolism - other enzymes, organism-specific biosystem; Drug metabolism -

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other enzymes, conserved biosystem; E2F transcription factor network, organism-specific biosystem; Fluoropyrimidine Activity, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of nucleotides, organism-specific biosystem;

Function

ATP binding; kinase activity; metal ion binding; nucleoside kinase activity; nucleotide binding; thymidine kinase activity; transferase activity; zinc ion binding;

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