

Recombinant Human Thymidine Kinase 2, Mitochondrial, His-tagged

Cat. No. TK2-1350H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human TK2 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	34-265aa
Description	TK2 belongs to the DCK/DGK family. Thymidine kinase is an enzyme, a phosphotransferase (a kinase): 2"-deoxythymidine kinase, ATP-thymidine 5"-phosphotransferase, It can be found in most living cells. It is present in two forms in mammalian cells, TK1 and TK2. Certain viruses also have genetic information for expression of viral thymidine kinases. 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. In 20 mM Tris-HCl buffer, pH8.0, 30% glycerol, 2mM DTT, 200mM NaCl.
Molecular Mass	30.2 kDa (257aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSHMVQRRR WPPDKEQEKE KKSVCIVEGN IASGKTTCLE FFSNATDVEV LTEPVSKWRN VRGHNPLGLM YHDASRWGLT LQTYVQLTML DRHTRPQVSS VRLMERSIHS ARYIFVENLY RSGKMPEVDY

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VVLSEWFDWI LRNMDVSVDL IVYLRTNPET CYQRLKKRCR EEEKVIPLEY
LEAIHHLHEE WLIKGSLFPM AAPVLVIEAD HHMERMLELF EQNRDRILTP
ENRKHCP

Purity >85% 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 -70°C. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [TK2 thymidine kinase 2, mitochondrial \[Homo sapiens \]](#)

Official Symbol TK2

Synonyms TK2; thymidine kinase 2, mitochondrial; mt-TK; MTTK; MTDPS2;

Gene ID [7084](#)

mRNA Refseq [NM_001172643](#)

Protein Refseq [NP_001166114](#)

MIM [188250](#)

UniProt ID [O00142](#)

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Chromosome Location	16q22-q23.1
Pathway	Cell Cycle, organism-specific biosystem; Cell Cycle, Mitotic, organism-specific biosystem; Drug metabolism - other enzymes, organism-specific biosystem; Drug metabolism - other enzymes, conserved biosystem; E2F mediated regulation of DNA replication, organism-specific biosystem; G1/S Transition, organism-specific biosystem; G1/S-Specific Transcription, organism-specific biosystem;
Function	ATP binding; kinase activity; nucleotide binding; phosphotransferase activity, alcohol group as acceptor; thymidine kinase activity; transferase activity;

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