

AR50434PU-N

Human Thymidine kinase 1 (TK1) (1-234, His-tag) - Purified

Alternate names:

TK-1, Thymidine kinase cytosolic

Quantity:

0.5 mg

Concentration:

1 mg/ml (determined by Bradford assay)

Background:

TK1, also known as thymidine kinase, 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. Deoxythymidine is present in the body fluids as a result of degradation of DNA from food and from dead cells. Thymidine kinase is required for the action of many antiviral drugs. It is used to select hybridoma cell lines in production of monoclonal antibodies. In clinical chemistry it is used as a proliferation marker in the diagnosis, control of treatment and follow-up of malignant disease, mainly of hematological malignancies.

Uniprot ID:

[P04183](#)

NCBI:

[NP_003249](#)

GeneID:

[7083](#)

Species:

Human

Source:

E. coli

Format:

State: Liquid purified protein

Purity: >90% by SDS - PAGE

Buffer System: 20 mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 0.1M NaCl, 1mM DTT

Description:

Recombinant human TK1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.

AA Sequence:

MGSSHHHHHH SSGLVPRGSH MGSMSINL PTVLPGPSK TRGQIQVILG PMFSGKSTEL
MRRVRRFQIA QYKCLVIKYA KDTRYSSSFC THDRNTMEAL PACLLRDVAQ EALGVAVIGI
DEGQFFPDIV EFCEAMANAG KTVIVAALDG TFQRKPFQAI LNLVPLAESV VKLTAVCMCEC
FREAAATKRL GTEKEVEVIG GADKYHSVCR LCYFKKASGQ PAGPDNKENC PVPKPGGEAV
AARKLFAPQQ ILQCSPAN

Molecular weight: 28.0 kDa (258aa) confirmed by MALDI-TOF

Storage:

Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer.

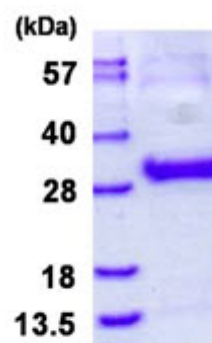
Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

Chang Z.F., et al. (1998) J. Biol. Chem. 273:12095-12100 Kreidberg J.A., et al. (1986) Mol. Cell. Biol. 6:2903-2909

Pictures:



15% SDS-PAGE (3ug)