Recombinant Protein Technical Manual

Recombinant Human TK1 Protein (His Tag)

RPES0789

Product Data:

Product SKU: RPES0789

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: P04183

Protein Information:

Molecular Mass:	26.5 kDa
AP Molecular Mass:	28 kDa
Tag:	C-6His
Bio-activity:	
Purity:	> 90 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping:	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at<-20°C.
Formulation:	Supplied as a 0.2 µm filtered solution of 20mM TrisHCl,150mM NaCl,1mM DTT,2mM EDTA, 10% Glycerol, pH 7.5.
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	Thymidine kinase; cytosolic;TK1

Immunogen Information:

Sequence: Met 1-Asn234

Background:

Thymidine kinase 1(TK1) belongs to the thymidine kinase family. It is located in the cytoplasm, and phosphorylated on Ser3 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 S-phase 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