Recombinant Human TK1 Protein (His Tag)

Catalog Number: PKSH033114

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

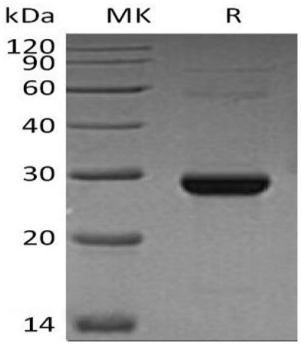
Description

Species	Human
Source	HEK293 Cells-derived Human TK1 protein Met 1-Asn234, with an C-terminal His
Calculated MW	26.5 kDa
Observed MW	28 kDa
Accession	P04183
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
Endotoxin	< 1.0 EU per μg of the protein 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 Tris-HCl, 150mM NaCl, 1mM DTT, 2mM EDTA, 10% Glycerol, pH 7.5.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Thymidine kinase 1(TK1) belongs to the thymidine kinase family. It is located in the cytoplasm, and phosphorylated on Ser-13 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