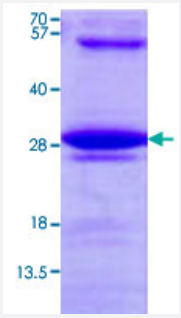
TK2 (Human) Recombinant Protein

Catalog # P5855 Size 50 ug

Applications



Specification

Product Description	Human TK2 (NP_004605, 34 a.a. - 265 a.a.) partial recombinant protein with His tag expressed in *E scherichia coli*.
Sequence	MGSSHHHHHHSSGLVPRGSHMGSHMVQRRAWPPDKEQEKEKKSVICVEGNIASGKTTCLEFFS NATDVEVLTEPVSKWRNVRGHNPLGLMYHDASRWGLTLQTYVQLTMLDRHTRPQVSSVRLMER SIHSARYIFVENLYRSGKMPEVDYVVLSEWFDWILRNMDVSVDLIVYLRTNPETCYQRLKKRCREE EKVIPLEYLEAIHHLHEEWLIKGSLFPMAAPVLVIEADHHMERMLELFEQNRDRILTPENRKHCP
Host	Escherichia coli
Theoretical MW (kDa)	30.2
Form	Liquid
Preparation Method	*Escherichia coli* expression system
Purity	> 85% by SDS - PAGE
Quality Control Testing	3 ug/lane in 15% SDS-PAGE Stained with Coomassie Blue. Due to the protein nature, dimmers and multimers may be observed.
Storage Buffer	In 20 mM Tris-HCl buffer, 200 mM NaCl, pH 8.0 (30% glycerol, 2 mM DTT).
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.

Copyright © 2023 Abnova Corporation. All Rights Reserved.

Applications

- SDS-PAGE

Gene Info — TK2

Entrez GeneID	7084
Gene Name	TK2
Gene Alias	-
Gene Description	thymidine kinase 2, mitochondrial
Omim ID	188250 251880
Gene Ontology	Hyperlink
Gene Summary	The mitochondrial deoxyribonucleotide (dNTP) pool is separated from the cytosolic pool because the mitochondria inner membrane is impermeable to charged molecules. The mitochondrial pool i s maintained by either import of cytosolic dNTPs through dedicated transporters or by salvaging d eoxynucleosides within the mitochondria; apparently, enzymes of the de novo dNTP synthesis pat hway are not present in the mitochondria. In nonreplicating cells, where cytosolic dNTP synthesis i s downregulated, mtDNA synthesis depends solely on the mitochondrial salvage pathway enzyme s, the deoxyribonucleoside kinases. Two of the 4 human deoxyribonucleoside kinases, deoxygua nosine kinase (DGK) and thymidine kinase-2, are expressed in mitochondria. Human DGK, enco ded by the DGUOK gene (MIM 601465), efficiently phosphorylates deoxyguanosine and deoxyad enosine, whereas TK2 phosphorylates deoxythymidine, deoxycytidine, and deoxyuridine. Thymidi ne kinase-2 (TK2) is a deoxyribonucleoside kinase that phosphorylates thymidine, deoxycytidine, and deoxyuridine, and also phosphorylates antiviral and anticancer nucleoside analogs.[supplied by OMIM
Other Designations	-

Pathway

- Drug metabolism - other enzymes
- Metabolic pathways
- Pyrimidine metabolism

Copyright © 2023 Abnova Corporation. All Rights Reserved.