

TK1 Rabbit mAb

Catalog # AP76173

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	P04183
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	25469

Additional Information

Gene ID	7083
Other Names	TK1
Dilution	WB~~1:500-1:1000 IHC-P~~N/A FC~~1:100-1:200 IP~~1:20
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

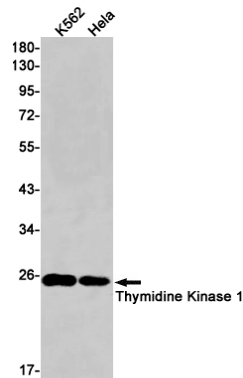
Protein Information

Name	TK1 (HGNC:11830)
Function	Cell-cycle-regulated enzyme of importance in nucleotide metabolism (PubMed: 9575153). Catalyzes the first enzymatic step in the salvage pathway converting thymidine into thymidine monophosphate (PubMed: 22385435). Transcriptional regulation limits expression to the S phase of the cell cycle and transient expression coincides with the oscillation in the intracellular dTTP concentration (Probable). Also important for the activation of anticancer and antiviral nucleoside analog prodrugs such as 1-b-d-arabinofuranosylcytosine (AraC) and 3c- azido-3c-deoxythymidine (AZT) (PubMed: 22385435).
Cellular Location	Cytoplasm.

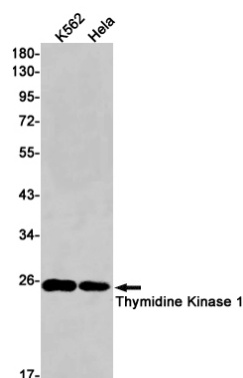
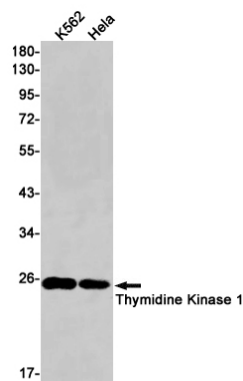
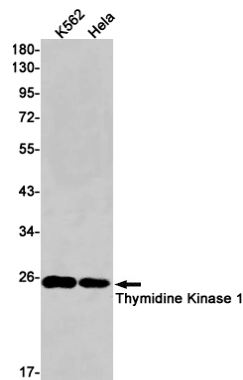
Background

Thymidine Kinase (TK1) is a highly conserved phosphotransferase that is present in most living cells. Thymidine Kinase catalyzes the phosphorylation reaction: deoxythymidine + ATP = deoxythymidine 5'-phosphate + ADP; it is thus involved in the reaction chain to introduce deoxythymidine into the DNA. Thymidine kinase is required for the action of many antiviral drugs, such as azidothymidine (AZT), and is also used to select hybridoma cell lines in the production of monoclonal antibodies. Thymidine Kinase has many clinical applications as it is only present in anticipation of cell division.

Images



Western blot analysis of Thymidine Kinase 1 in K562, HeLa lysates using Thymidine Kinase antibody.



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