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Anti-TK1 Picoband Antibody

Catalog # ABO12518

Product Information

Application	WB
Primary Accession	P04183
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Thymidine kinase, cytosolic(TK1) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	7083
Other Names	Thymidine kinase, cytosolic, 2.7.1.21, TK1
Calculated MW	25469
Application Details	Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Cytoplasm.
Source	Eukaryota
Protein Name	Thymidine kinase, cytosolic
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human TK1 recombinant protein (Position: S2-N234). Human TK1 shares 87.1% and 91.7% amino acid (aa) sequence identity with mouse and rat TK1, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

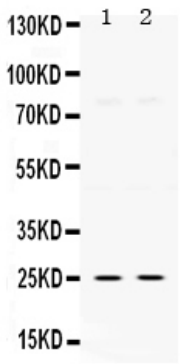
Protein Information

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 1, soluble (gene name TK1), is a human thymidine kinase. Thymidine kinase catalyzes the phosphorylation of thymidine to deoxythymidine monophosphate. This gene is mapped to 17q23.2-q25.3. It is estimated that the maximal size of the TK1 gene is 14 kb and its minimal size between 4 and 5 kb. The gene contains many noncoding inserts and numerous Alu sequences. There are two forms of this protein, which have been identified in animal cells, one in cytosol and one in mitochondria. Activity of the cytosolic enzyme is high in proliferating cells and peaks during the S-phase of the cell cycle; it is very low in resting cells.

Images



Anti- TK1 Picoband antibody, ABO12518, Western blottingAll lanes: Anti TK1 (ABO12518) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: SMMC Whole Cell Lysate at 40ugPredicted bind size: 25KDObserved bind size: 25KD