

Thymidine kinase 2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) **Catalog # AP57613**

Specification

Thymidine kinase 2 Polyclonal Antibody - Product Information

Application **Primary Accession**

Reactivity Host Clonality Calculated MW **Physical State** Immunogen

Epitope Specificity

Purity

Buffer

affinity purified by Protein A

Isotype

SUBCELLULAR LOCATION

SIMILARITY DISEASE

Important Note

WB, IHC-P, IHC-F, IF, ICC, E

000142 Rat Rabbit **Polyclonal 31 KDa** Liquid

KLH conjugated synthetic peptide derived

from human Thymidine kinase 2

21-120/265

laG

0.01M TBS (pH7.4) with 1% BSA, 0.02%

Proclin300 and 50% Glycerol.

Mitochondrion.

Belongs to the DCK/DGK family.

Defects in TK2 are a cause of mitochondrial DNA depletion syndrome type 2 (MTDPS2) [MIM:609560]. A disorder characterized primarily by childhood onset of muscle weakness associated with depletion of mtDNA in skeletal muscle. There is wide clinical variability; some patients have onset in infancy and show a rapidly progressive course with early death due to respiratory failure, whereas others have

later onset of a slowly progressive

mvopathv.

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

This gene encodes a deoxyribonucleoside kinase that specifically phosphorylates thymidine, deoxycytidine, and deoxyuridine. The encoded enzyme localizes to the mitochondria and is required for mitochondrial DNA synthesis. Mutations in this gene are associated with a myopathic form of mitochondrial DNA depletion syndrome. Alternate splicing results in multiple transcript variants encoding distinct isoforms, some of which lack transit peptide, so are not localized to mitochondria. [provided by RefSeq, Dec 2012].

Thymidine kinase 2 Polyclonal Antibody - Additional Information



Gene ID 7084

Other Names

Thymidine kinase 2, mitochondrial, 2.7.1.21, Mt-TK, TK2

Target/Specificity

Predominantly expressed in liver, pancreas, muscle, and brain.

Dilution

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<span class ="dilution_WB">WB~~1:1000</span><br \><span class
="dilution_IHC-P">IHC-P~~N/A</span><br \><span class
="dilution_IHC-F">IHC-F~~N/A</span><br \><span class
="dilution_IF">IF~~1:50~200</span><br \><span class ="dilution_ICC">ICC~~N/A</span><br \><span class ="dilution_E">E~~N/A</span>
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Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Thymidine kinase 2 Polyclonal Antibody - Protein Information

Name TK2 {ECO:0000303|PubMed:9989599, ECO:0000312|HGNC:HGNC:11831}

Function

Phosphorylates thymidine, deoxycytidine, and deoxyuridine in the mitochondrial matrix (PubMed:11687801, PubMed:9989599). In non- replicating cells, where cytosolic dNTP synthesis is down-regulated, mtDNA synthesis depends solely on TK2 and DGUOK (PubMed:9989599). Widely used as target of antiviral and chemotherapeutic agents (PubMed:9989599).

Cellular Location

Mitochondrion.

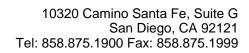
Tissue Location

Predominantly expressed in liver, pancreas, muscle, and brain.

Thymidine kinase 2 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture





Thymidine kinase 2 Polyclonal Antibody - Images