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Thymidine kinase 2 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57613

Specification

Thymidine kinase 2 Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IHC-F, IF, ICC, E**
Primary Accession	O00142
Reactivity	**Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**31 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human Thymidine kinase 2**
Epitope Specificity	**21-120/265**
Isotype	**IgG**
Purity	
affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Mitochondrion.**
SIMILARITY	**Belongs to the DCK/DGK family.**
DISEASE	**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 myopathy.**
Important Note	**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
WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ 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 ℃.

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