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TK2 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP14865b

Specification

TK2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession O00142

TK2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 7084

Other Names
Thymidine kinase 2, mitochondrial, Mt-TK, TK2

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TK2 Antibody (C-term) Blocking Peptide - Protein Information

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

Function
Phosphorylates thymidine, deoxycytidine, and deoxyuridine in the mitochondrial matrix (PubMed:9989599, PubMed:11687801). 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.

TK2 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

TK2 Antibody (C-term) Blocking Peptide - Images

TK2 Antibody (C-term) Blocking Peptide - Background

This gene encodes a deoxyribonucleoside kinase thatspecifically phosphorylates thymidine, deoxycytidine, anddeoxyuridine. The encoded enzyme localizes to the mitochondria andis required for mitochondrial DNA synthesis. Mutations in this geneare associated with a myopathic form of mitochondrial DNA depletionsyndrome. Alternate splicing results in multiple transcriptvariants.

TK2 Antibody (C-term) Blocking Peptide - References

Davila, S., et al. Genes Immun. 11(3):232-238(2010)Sato, N., et al. Am. J. Hum. Genet. 85(5):544-557(2009)Collins, J., et al. Neuromuscul. Disord. 19(11):784-787(2009)Villarroya, J., et al. Exp. Cell Res. 315(8):1429-1438(2009)Frangini, M., et al. FEBS J. 276(4):1104-1113(2009)