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AK3 (AKL3L) Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP8133a

Specification

AK3 (AKL3L) Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q9UIJ7

AK3 (AKL3L) Antibody (N-term) Blocking peptide - Additional Information

Gene ID 50808

Other Names
GTP:AMP phosphotransferase AK3, mitochondrial {ECO:0000255|HAMAP-Rule:MF_03169}, 27410 {ECO:0000255|HAMAP-Rule:MF_03169}, Adenylate kinase 3 {ECO:0000255|HAMAP-Rule:MF_03169}, AK 3 {ECO:0000255|HAMAP-Rule:MF_03169}, Adenylate kinase 3 alpha-like 1 {ECO:0000255|HAMAP-Rule:MF_03169}, AK3 {ECO:0000255|HAMAP-Rule:MF_03169}

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8133a was selected from the N-term region of human AKL3L . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

AK3 (AKL3L) Antibody (N-term) Blocking peptide - Protein Information

Name AK3 {ECO:0000255|HAMAP-Rule:MF_03169}

Synonyms AK3L1, AK6, AKL3L

Function
Involved in maintaining the homeostasis of cellular nucleotides by catalyzing the interconversion of nucleoside phosphates. Has GTP:AMP phosphotransferase and ITP:AMP phosphotransferase activities.

Cellular Location
Mitochondrion matrix {ECO:0000255|HAMAP- Rule:MF_03169, ECO:0000269|PubMed:11485571}

Tissue Location
Highly expressed in heart, skeletal muscle and liver, moderately expressed in pancreas and kidney, and weakly expressed in placenta, brain and lung.

AK3 (AKL3L) Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

AK3 (AKL3L) Antibody (N-term) Blocking peptide - Images

AK3 (AKL3L) Antibody (N-term) Blocking peptide - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The AGC kinase group consists of 63 kinases including the cyclic nucleotide-regulated protein kinase (PKA & PKG) family, the diacylglycerol-activated/phospholipid-dependent protein kinase C (PKC) family, the related to PKA and PKC (RAC/Akt) protein kinase family, the kinases that phosphorylate G protein-coupled receptors family (ARK), and the kinases that phosphorylate ribosomal protein S6 family (RSK).

AK3 (AKL3L) Antibody (N-term) Blocking peptide - References

Noma, T., et al., Biochem. Biophys. Res. Commun. 264(3):990-997 (1999).Noma, T., et al., Biochem. J. 358 (Pt 1), 225-232 (2001).