

AK3 (AKL3L) Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP8133b**Specification**

AK3 (AKL3L) Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [Q9UIJ7](#)**AK3 (AKL3L) Antibody (C-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 [AP8133b](/product/products/AP8133b) was selected from the C-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 (C-term) Blocking peptide - Protein Information

Name AK3 {ECO:0000255|HAMAP-Rule:MF_03169, ECO:0000312|HGNC:HGNC:17376}

Function

Mitochondrial adenylate kinase with a specific GTP:AMP phosphotransferase activity (PubMed: [11485571](http://www.uniprot.org/citations/11485571), PubMed: [32822537](http://www.uniprot.org/citations/32822537)). Could also use ITP as phosphate donor (PubMed: [11485571](http://www.uniprot.org/citations/11485571)). Its physiological function is to recycle GTP into GDP which is necessary for the TCA cycle in the mitochondrial matrix (Probable).

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 (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

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

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

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the γ 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 (C-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).