ADK Peptide - N-Terminal Region Blocking Peptide

PRODUCT OVERVIEW

Product Name	ADK, Blocking Peptide
Full Product Name	ADK Peptide - N-terminal region
Product Gene Name	ADK blocking peptide
Product Synonym Gene Name	ADK;
Sequence	Synthetic peptide located within the following region: KVEAPQALRE NILFGMGNPL LDISAVVDKD FLDKYSLKPN DQILAEDKHK
Species Reactivity	Human
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	ADK peptide (MBS3244069) is used for blocking the activity of ADK antibody (MBS3219178)
Molecular Weight	39kDa
OMIM	102750
Product Categories/Family for ADK blocking peptide	Peptide
Applications Tested/Suitable for ADK blocking peptide	Western Blot (WB)
Related Product Information for ADK blocking peptide	This is a synthetic peptide designed for use in combination with anti-ADK Antibody, made Target Description: This gene an enzyme which catalyzes the transfer of the gamma-phosphate from ATP to adenosine, thereby serving as a regulator of concentrations of both extracellular adenosine and intracellular adenine nucleotides. Adenosine has widespread effects on the cardiovascular, nervous, respiratory, and immune systems and inhibitors of the enzyme could play an important pharmacological role in increasing intravascular adenosine concentrations and acting as anti-inflammatory agents. Multiple transcript variants encoding different isoforms have been found for this gene.
Other Notes	Small volumes of ADK blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ADK purchase	MBS3244069 is a blocking peptide targeting ADK. Also known as ADK Peptide - N-terminal region. Reactive in Human.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ADK. It may not necessarily be applicable to this product.

NCBI GI #	32484975
NCBI GeneID	132
NCBI Accession #	NP_006712
UniProt Primary Accession #	P55263
UniProt Related Accession #	P55263

GenBank Nucleotide #	NM_006721.3
NCBI Official Full Name	adenosine kinase isoform b
NCBI Official Synonym Full Names	adenosine kinase
NCBI Official Symbol	ADK
NCBI Official Synonym Symbols	AK
UniProt Protein Name	Adenosine kinase
UniProt Synonym Protein Names	Adenosine 5'-phosphotransferase
UniProt Gene Name	ADK
UniProt Synonym Gene Names	AK
UniProt Entry Name	ADK_HUMAN
NCBI Protein Information	adenosine kinase
NCBI Summary for ADK	This gene an enzyme which catalyzes the transfer of the gamma-phosphate from ATP to adenosine, thereby serving as a regulator of concentrations of both extracellular adenosine and intracellular adenine nucleotides. Adenosine has widespread effects on the cardiovascular, nervous, respiratory, and immune systems and inhibitors of the enzyme could play an important pharmacological role in increasing intravascular adenosine concentrations and acting as anti-inflammatory agents. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2011]
UniProt Comments for ADK	ADK: ATP dependent phosphorylation of adenosine and other related nucleoside analogs to monophosphate derivatives. Serves as a potential regulator of concentrations of extracellular adenosine and intracellular adenine nucleotides. Defects in ADK are the cause of hypermethioninemia due to adenosine kinase deficiency (HMAKD). A metabolic disorder characterized by global developmental delay, early-onset seizures, mild dysmorphic features, and characteristic biochemical anomalies, including persistent hypermethioninemia with increased levels of S-adenosylmethionine and S-adenosylhomocysteine. Homocysteine levels are typically normal. Belongs to the carbohydrate kinase PfkB family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: EC 2.7.1.20; Nucleotide Metabolism - purine; Kinase, other Chromosomal Location of Human Ortholog: 10q22|10q11-q24 Cellular Component: nucleoplasm; cytoplasm; cytosol Molecular Function: metal ion binding; adenosine kinase activity; phosphotransferase activity, alcohol group as acceptor; ATP binding Biological Process: nucleobase, nucleoside and nucleotide metabolic process; dATP biosynthetic process; ribonucleoside monophosphate biosynthetic process; positive regulation of T cell proliferation; circadian regulation of gene expression; adenosine metabolic process; phosphorylation; purine base metabolic process; purine salvage Disease: Hypermethioninemia Due To Adenosine Kinase Deficiency
Research Articles on ADK	**1.** The results of this study showed that over-expression of the major adenosine removing enzyme ADK in reactive astrocytes and subpopulation of remaining neurons in Rasmussen Encephalitis patients plays an important role in the epileptogensis of Rasmussen Encephalitis.
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