

Anti-Adenylate Kinase 1 Picoband Antibody

Catalog # ABO11651

Specification

Anti-Adenylate Kinase 1 Picoband Antibody - Product Information

Application WB
Primary Accession P00568
Host Rabbit

Reactivity Human, Mouse, Rat

Clonality Polyclonal Lyophilized

Description

Rabbit IgG polyclonal antibody for Adenylate kinase isoenzyme 1(AK1) detection. Tested with WB in Human; Mouse; Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Adenylate Kinase 1 Picoband Antibody - Additional Information

Gene ID 203

Other Names

Adenylate kinase isoenzyme 1 {ECO:0000255|HAMAP-Rule:MF_03171}, AK 1 {ECO:0000255|HAMAP-Rule:MF_03171}, 2.7.4.3 {ECO:0000255|HAMAP-Rule:MF_03171}, 2.7.4.6 {ECO:0000255|HAMAP-Rule:MF_03171}, ATP-AMP transphosphorylase 1 {ECO:0000255|HAMAP-Rule:MF_03171}, ATP:AMP phosphotransferase {ECO:0000255|HAMAP-Rule:MF_03171}, Adenylate monophosphate kinase {ECO:0000255|HAMAP-Rule:MF_03171}, Myokinase {ECO:0000255|HAMAP-Rule:MF_03171}, AK1 {ECO:0000255|HAMAP-Rule:MF_03171}

Calculated MW 21635 MW KDa

Application Details

Western blot, 0.1-0.5 μg/ml, Human, Mouse, Rat
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Subcellular Localization

Cytoplasm.

Protein Name

Adenylate kinase isoenzyme 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human AK1 (149-189aa RLETYYKATEPVIAFYEKRGIVRKVNAEGSVDSVFSQVCTH), different from the related mouse sequence



by seven amino acids, and from the related rat sequence by four amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins.

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-Adenylate Kinase 1 Picoband Antibody - Protein Information

Name AK1 {ECO:0000255|HAMAP-Rule:MF 03171, ECO:0000312|HGNC:HGNC:361}

Function

Catalyzes the reversible transfer of the terminal phosphate group between ATP and AMP. Also displays broad nucleoside diphosphate kinase activity. Plays an important role in cellular energy homeostasis and in adenine nucleotide metabolism (By similarity) (PubMed:21080915, PubMed:23416111, PubMed:2542324). Also catalyzes at a very low rate the synthesis of thiamine triphosphate (ThTP) from thiamine diphosphate (ThDP) and ADP (By similarity).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:P05081}.

Anti-Adenylate Kinase 1 Picoband Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Anti-Adenylate Kinase 1 Picoband Antibody - Images





Western blot analysis of Adenylate Kinase 1 expression in rat skeletal muscle extract (lane 1), mouse cardiac muscle extract (lane 2) and COLO320 whole cell lysates (lane 3). Adenylate Kinase 1 at 22KD was detected using rabbit anti- Adenylate Kinase 1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11651) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-Adenylate Kinase 1 Picoband Antibody - Background

This gene encodes an adenylate kinase enzyme involved in energy metabolism and homeostasis of cellular adenine nucleotide ratios in different intracellular compartments. This gene is highly expressed in skeletal muscle, brain and erythrocytes. Certain mutations in this gene resulting in a functionally inadequate enzyme are associated with a rare genetic disorder causing nonspherocytic hemolytic anemia. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms.