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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**
Format	**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

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
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Adenylate Kinase 1 Picoband Antibody - Images

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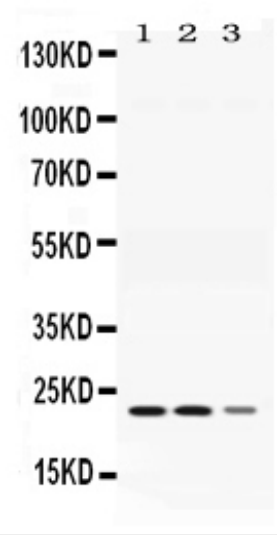

Western blot analysis of Adenylate Kinase 1 expression in rat skeletal muscle extract (lane 1), mouse cardiac muscle extract (lane 2) and COLO320 whole cell lysates (lane 3). Adenylate Kinase 1 at 22KD was detected using rabbit anti- Adenylate Kinase 1 Antigen Affinity purified polyclonal antibody (Catalog # 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.