10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-Adenylate Kinase 1 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI1790

Specification

KD-Validated Anti-Adenylate Kinase 1 Mouse Monoclonal Antibody - Product Information

Application	**WB, ICC**
Primary Accession	P00568
Reactivity	**Human**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1 kappa**
Calculated MW	**Predicted, 45 kDa, observed, 44 kDa KDa**
Gene Name	**AK1**
Aliases	**AK1; Adenylate Kinase 1; Adenylate Monophosphate Kinase; Adenylate Kinase Isoenzyme 1; ATP-AMP Transphosphorylase 1; ATP:AMP Phosphotransferase; EC 2.7.4.3; Myokinase; Testis Secretory Sperm Binding Protein Li 58j; Epididymis Secretory Sperm Binding Protein; EC 2.7.4.10; EC 2.7.4.6; HTL-S-58j; EC 2.7.4; AK 1**
Immunogen	**Recombinant protein of human Adenylate Kinase 1**

KD-Validated Anti-Adenylate Kinase 1 Mouse Monoclonal 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, 2.7.4.4, 2.7.4.6 {ECO:0000255|HAMAP-Rule:MF_03171, ECO:0000269|PubMed:23416111}, 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, ECO:0000312|HGNC:HGNC:361}

KD-Validated Anti-Adenylate Kinase 1 Mouse Monoclonal 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:<a

href="http://www.uniprot.org/citations/2542324" target="_blank">2542324). Also catalyzes at a very low rate the synthesis of thiamine triphosphate (ThTP) from thiamine diphosphate (ThDP) and ADP (By similarity).

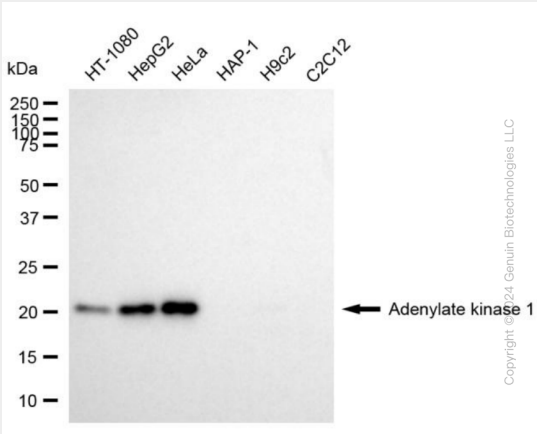
Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:P05081}.

KD-Validated Anti-Adenylate Kinase 1 Mouse Monoclonal Antibody - Protocols

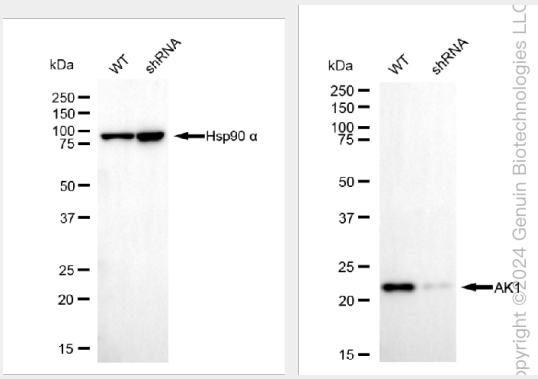
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Adenylate Kinase 1 Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-Adenylate kinase 1 antibody (Cat#62872). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Adenylate kinase 1 antibody (Cat#62872, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (Cat#101, 1:20,000) respectively. Image was developed using FeQ™ ECL Substrate Kit (Cat#226).



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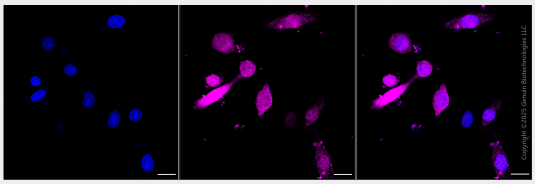
Western blotting analysis using anti-adenylate kinase 1 antibody (Cat#62872). Adenylate kinase 1 expression in wild-type (WT) and adenylate kinase 1 (AK1) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-adenylate kinase 1 antibody (Cat#62872, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (Cat#101, 1:20,000) respectively. Image was developed using NaQ™ ECL Substrate Kit (Cat#716).



Immunocytochemical staining of HepG2 cells with anti-Adenylate kinase 1 antibody(Cat#62872, 1:1,000). Nuclei were stained blue with DAPI; Adenylate kinase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.