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KD-Validated Anti-AK3 mouse monoclonal antibody

Mouse monoclonal antibody
Catalog # AGI1963

Specification

KD-Validated Anti-AK3 mouse monoclonal antibody - Product Information

Application	**WB**
Primary Accession	Q9UIJ7
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG2a**
Calculated MW	**Predicted, 26 kDa, observed, 26 kDa KDa**
Gene Name	**AK3**
Aliases	**AK3; Adenylate Kinase 3; GTP:AMP Phosphotransferase AK3, Mitochondrial; AKL3L1; AK3L1; AK6; Adenylate Kinase 3 Alpha-Like 1; EC 2.7.4.10; AKL3L; Adenylate Kinase 6, Adenylate Kinase 3 Like 1; GTP:AMP Phosphotransferase, Mitochondrial; Adenylate Kinase 3 Like 1; Adenylate Kinase 6; EC 2.7.4; AK 3; FIX**
Immunogen	**Recombinant protein of human AK3**

KD-Validated Anti-AK3 mouse monoclonal antibody - Additional Information

Gene ID	**50808**

Other Names
GTP:AMP phosphotransferase AK3, mitochondrial, 2.7.4.10 {ECO:0000255|HAMAP-Rule:MF_03169, ECO:0000269|PubMed:11485571, ECO:0000269|PubMed:32822537}, Adenylate kinase 3 {ECO:0000255|HAMAP-Rule:MF_03169, ECO:0000312|HGNC:HGNC:17376}, Adenylate kinase 3 alpha-like 1 {ECO:0000255|HAMAP-Rule:MF_03169, ECO:0000312|HGNC:HGNC:17376}, Adenylate kinase isozyme 3, AK3 {ECO:0000255|HAMAP-Rule:MF_03169, ECO:0000312|HGNC:HGNC:17376}

KD-Validated Anti-AK3 mouse monoclonal antibody - 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, PubMed:32822537). Could also use ITP as phosphate donor (PubMed: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}

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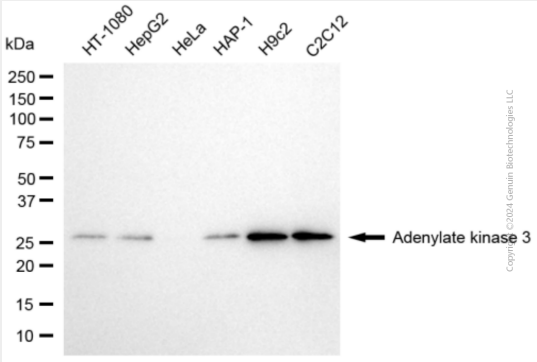
Tissue Location
Highly expressed in heart, skeletal muscle and liver, moderately expressed in pancreas and kidney, and weakly expressed in placenta, brain and lung.

KD-Validated Anti-AK3 mouse monoclonal antibody - Protocols

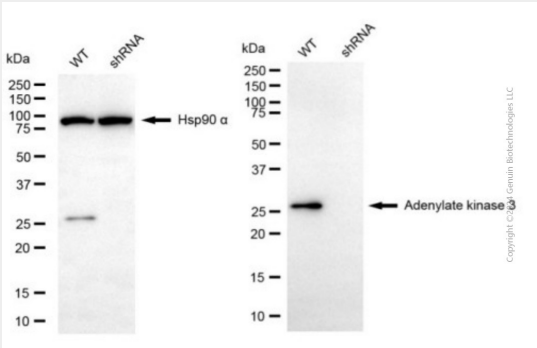
Provided below are standard protocols that you may find useful for product applications.

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

KD-Validated Anti-AK3 mouse monoclonal antibody - Images



Western blotting analysis using anti-adenylate kinase 3 antibody (Cat#AGI1963). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-adenylate kinase 3 antibody (Cat#AGI1963, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-adenylate kinase 3 antibody (Cat#AGI1963). Adenylate kinase 3 expression in wild type (WT) and adenylate kinase 3 (AK3) 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 3 antibody (Cat#AGI1963, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.