

**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	<a href="#">Q9UIJ7</a>
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 Recombinant protein of human AK3
Immunogen	

**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:<a href="http://www.uniprot.org/citations/11485571" target="\_blank">11485571</a>, PubMed:<a href="http://www.uniprot.org/citations/32822537" target="\_blank">32822537</a>). Could also use ITP as phosphate donor (PubMed:<a href="http://www.uniprot.org/citations/11485571" target="\_blank">11485571</a>). 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}

### Tissue Location

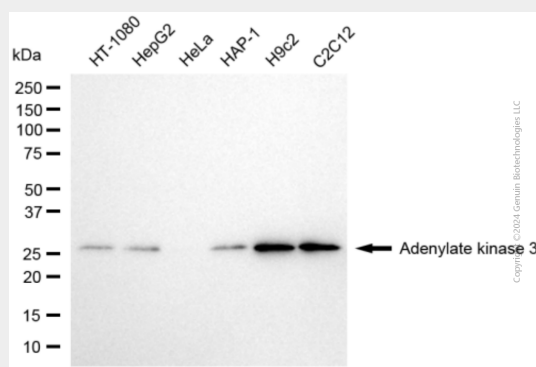
Highly expressed in heart, skeletal muscle and liver, moderately expressed in pancreas and kidney, and weakly expressed in placenta, brain and lung.

### KD-Validated Anti-AK3 mouse monoclonal antibody - Protocols

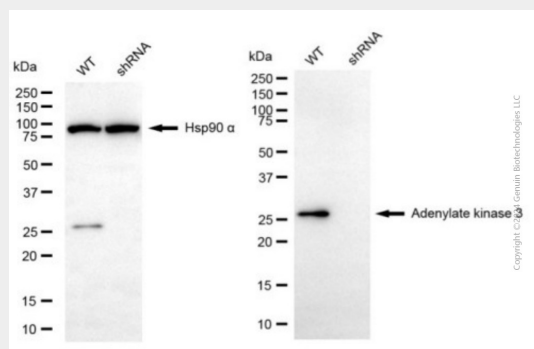
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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.