

## Anti-Adenylate kinase 4 Rabbit Monoclonal Antibody Catalog # ABO16160

### Specification

#### Anti-Adenylate kinase 4 Rabbit Monoclonal Antibody - Product Information

Application	WB, IHC, IF, ICC
Primary Accession	<a href="#">P27144</a>
Host	Rabbit
Isotype	IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid

#### Description

Anti-Adenylate kinase 4 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human.

#### Anti-Adenylate kinase 4 Rabbit Monoclonal Antibody - Additional Information

Gene ID 205

#### Other Names

Adenylate kinase 4, mitochondrial {ECO:0000255|HAMAP-Rule:MF\_03170}, AK 4 {ECO:0000255|HAMAP-Rule:MF\_03170}, 2.7.4.10 {ECO:0000255|HAMAP-Rule:MF\_03170, ECO:0000269|PubMed:19766732, ECO:0000269|PubMed:23416111}, 2.7.4.6 {ECO:0000255|HAMAP-Rule:MF\_03170, ECO:0000269|PubMed:19766732, ECO:0000269|PubMed:23416111}, Adenylate kinase 3-like {ECO:0000255|HAMAP-Rule:MF\_03170}, GTP:AMP phosphotransferase AK4 {ECO:0000255|HAMAP-Rule:MF\_03170}, AK4 {ECO:0000255|HAMAP-Rule:MF\_03170}

#### Calculated MW

25 kDa KDa

#### Application Details

WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200

#### Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

#### Immunogen

A synthesized peptide derived from human Adenylate kinase 4

#### Purification

Affinity-chromatography

#### Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

## Anti-Adenylate kinase 4 Rabbit Monoclonal Antibody - Protein Information

**Name** AK4 {ECO:0000255|HAMAP-Rule:MF\_03170}

### Function

Involved in maintaining the homeostasis of cellular nucleotides by catalyzing the interconversion of nucleoside phosphates (PubMed:<a href="http://www.uniprot.org/citations/19073142" target="\_blank">19073142</a>, PubMed:<a href="http://www.uniprot.org/citations/19766732" target="\_blank">19766732</a>, PubMed:<a href="http://www.uniprot.org/citations/23416111" target="\_blank">23416111</a>, PubMed:<a href="http://www.uniprot.org/citations/24767988" target="\_blank">24767988</a>). Efficiently phosphorylates AMP and dAMP using ATP as phosphate donor, but phosphorylates only AMP when using GTP as phosphate donor (PubMed:<a href="http://www.uniprot.org/citations/19073142" target="\_blank">19073142</a>, PubMed:<a href="http://www.uniprot.org/citations/19766732" target="\_blank">19766732</a>, PubMed:<a href="http://www.uniprot.org/citations/23416111" target="\_blank">23416111</a>). Also displays broad nucleoside diphosphate kinase activity (PubMed:<a href="http://www.uniprot.org/citations/19073142" target="\_blank">19073142</a>, PubMed:<a href="http://www.uniprot.org/citations/19766732" target="\_blank">19766732</a>, PubMed:<a href="http://www.uniprot.org/citations/23416111" target="\_blank">23416111</a>). Plays a role in controlling cellular ATP levels by regulating phosphorylation and activation of the energy sensor protein kinase AMPK (PubMed:<a href="http://www.uniprot.org/citations/24767988" target="\_blank">24767988</a>, PubMed:<a href="http://www.uniprot.org/citations/26980435" target="\_blank">26980435</a>). Plays a protective role in the cellular response to oxidative stress (PubMed:<a href="http://www.uniprot.org/citations/19130895" target="\_blank">19130895</a>, PubMed:<a href="http://www.uniprot.org/citations/23474458" target="\_blank">23474458</a>, PubMed:<a href="http://www.uniprot.org/citations/26980435" target="\_blank">26980435</a>).

### Cellular Location

Mitochondrion matrix {ECO:0000255|HAMAP-Rule:MF\_03170, ECO:0000269|PubMed:11485571, ECO:0000269|PubMed:19766732, ECO:0000269|PubMed:26980435}

### Tissue Location

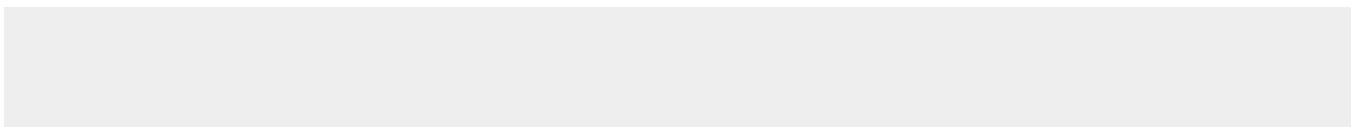
Highly expressed in kidney, moderately expressed in heart and liver and weakly expressed in brain

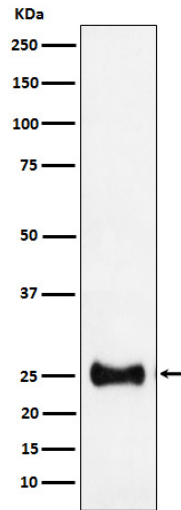
## Anti-Adenylate kinase 4 Rabbit Monoclonal Antibody - Protocols

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](#)

## Anti-Adenylate kinase 4 Rabbit Monoclonal Antibody - Images





Western blot analysis of Adenylate kinase 4 expression in HepG2 cell lysate.