

AK3L1 antibody - middle region
Rabbit Polyclonal Antibody
Catalog # AI12098**Specification**

AK3L1 antibody - middle region - Product Information

Application	WB
Primary Accession	P27144
Other Accession	NM_001005353 , NP_001005353
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Horse, Bovine, Guinea Pig, Dog
Predicted Host	Pig, Dog
Clonality	Rabbit
Calculated MW	Polyclonal 25kDa KDa

AK3L1 antibody - middle region - Additional Information**Gene ID 205**Alias Symbol **AK3, AK4, AK3L1, AK3L2****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}, 2.7.4.6 {ECO:0000255|HAMAP-Rule:MF_03170}, 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}

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage

Add 100 ul of distilled water. Final anti-AK3L1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions

AK3L1 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

AK3L1 antibody - middle region - Protein InformationName AK4 ([HGNC:363](#))**Function**

Broad-specificity mitochondrial nucleoside phosphate kinase involved in cellular nucleotide homeostasis by catalyzing nucleoside- phosphate interconversions (PubMed:19073142, PubMed:19766732, PubMed:<a

[23416111](http://www.uniprot.org/citations/23416111), PubMed: [24767988](http://www.uniprot.org/citations/24767988)). Similar to other adenylate kinases, preferentially catalyzes the phosphorylation of the nucleoside monophosphate AMP with ATP as phosphate donor to produce ADP (PubMed: [19766732](http://www.uniprot.org/citations/19766732)). Phosphorylates only AMP when using GTP as phosphate donor (PubMed: [19766732](http://www.uniprot.org/citations/19766732)). In vitro, can also catalyze the phosphorylation of CMP, dAMP and dCMP and use GTP as an alternate phosphate donor (PubMed: [19766732](http://www.uniprot.org/citations/19766732), PubMed: [23416111](http://www.uniprot.org/citations/23416111)). Moreover, exhibits a diphosphate kinase activity, producing ATP, CTP, GTP, UTP, TTP, dATP, dCTP and dGTP from the corresponding diphosphate substrates with either ATP or GTP as phosphate donors (PubMed: [23416111](http://www.uniprot.org/citations/23416111)). Plays a role in controlling cellular ATP levels by regulating phosphorylation and activation of the energy sensor protein kinase AMPK (PubMed: [24767988](http://www.uniprot.org/citations/24767988), PubMed: [26980435](http://www.uniprot.org/citations/26980435)). Plays a protective role in the cellular response to oxidative stress (PubMed: [19130895](http://www.uniprot.org/citations/19130895), PubMed: [23474458](http://www.uniprot.org/citations/23474458), PubMed: [26980435](http://www.uniprot.org/citations/26980435)).

Cellular Location

Mitochondrion matrix {ECO:0000255|HAMAP- Rule:MF_03170, ECO:0000269|PubMed:11485571, ECO:0000269|PubMed:19766732, ECO:0000269|PubMed:26980435}

Tissue Location

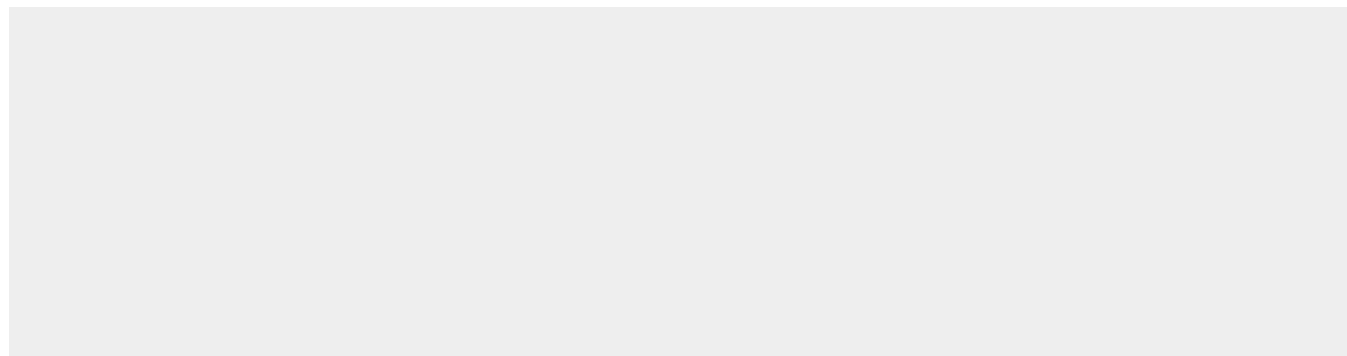
Highly expressed in kidney, moderately expressed in heart and liver and weakly expressed in brain

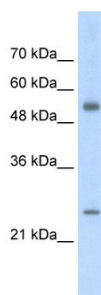
AK3L1 antibody - middle region - Protocols

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](#)

AK3L1 antibody - middle region - Images





WB Suggested Anti-AK3L1 Antibody Titration: 2.5µg/ml
Positive Control: Jurkat cell lysate

AK3L1 antibody - middle region - References

Noma, T., Biochem. J. 358 (PT1), 225-232 (2001) Reconstitution and Storage: For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.