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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	**Pig, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**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 Information

Name 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

href="http://www.uniprot.org/citations/23416111" target="_blank">23416111, PubMed: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). Phosphorylates only AMP when using GTP as phosphate donor (PubMed:19766732). In vitro, can also catalyze the phosphorylation of CMP, dAMP and dCMP and use GTP as an alternate phosphate donor (PubMed:19766732, PubMed: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). Plays a role in controlling cellular ATP levels by regulating phosphorylation and activation of the energy sensor protein kinase AMPK (PubMed:24767988, PubMed:26980435). Plays a protective role in the cellular response to oxidative stress (PubMed:19130895, PubMed:23474458, PubMed: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 Cytomety
- Cell Culture

AK3L1 antibody - middle region - Images

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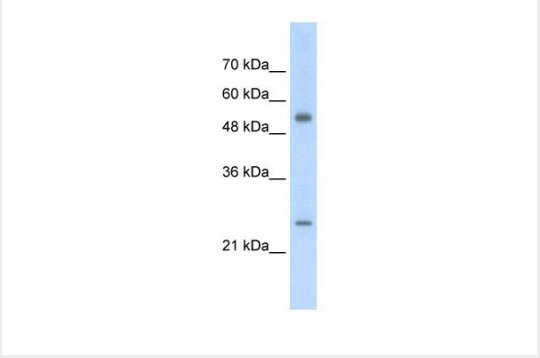

WB Suggested Anti-AK3L1 Antibody Titration: 2.5µg/ml
Positive Control: Jurkat cell lysate

AK3L1 antibody - middle region - References

Noma,T.,Biochem.J.358(PT1),225-232(2001)ReconstitutionandStorage:Forshorttermuse,storeat2-8Cupto1week.Forlongtermstorage,storeat-20Cinsmallaliquotstopreventfreeze-thawcycles.