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AKD1 Rabbit pAb

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Catalog # AP94032

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q5TCS8
Reactivity	Mouse
Predicted	Rat, Dog, Human, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	221413
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human AKD1
Epitope Specificity	1331-1430/1911
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	AKD1 is a 1,911 amino acid coiled-coil protein belonging to the adenylate kinase family. AKD1 exists as six alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 6q21. Chromosome 6 makes up nearly 6% of the human genome and contains 170 million base pairs, which encode 1,200 genes. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. A bipolar disorder susceptibility locus is also linked to the q arm of chromosome 6. The PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatiblity complex proteins are located on chromosome 6. Stickler syndrome, 21-hydroxylase deficiency and maple syrup urine disease are also associated with genes on chromosome 6.

Additional Information

Gene ID	221264
Other Names	Adenylate kinase 9, 2.7.4.4, 2.7.4.6, Adenylate kinase domain-containing protein 1 {ECO:0000312|HGNC:HGNC:33814}, Adenylate kinase domain-containing protein 2 {ECO:0000312|HGNC:HGNC:33814}, AK9 {ECO:0000303|PubMed:23416111, ECO:0000312|HGNC:HGNC:33814}
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

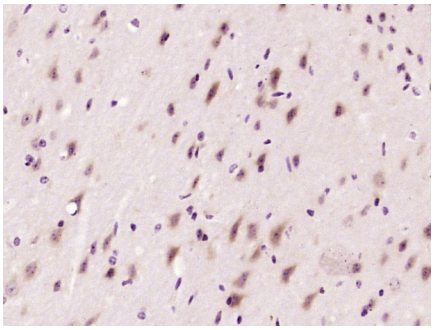
Protein Information

Name	AK9 {ECO:0000303|PubMed:23416111, ECO:0000312|HGNC:HGNC:33814}
Function	Broad-specificity nucleoside phosphate kinase involved in cellular nucleotide homeostasis by catalyzing nucleoside-phosphate interconversions. Similar to other adenylate kinases, preferentially catalyzes the phosphorylation of the nucleoside monophosphate AMP with ATP as phosphate donor to produce ADP. In vitro, can also catalyze the phosphorylation of CMP, dAMP and dCMP and use GTP as an alternate phosphate donor. 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. For this activity shows the following substrate preference CDP > UDP > ADP > TDP.
Cellular Location	Cytoplasm. Nucleus. Cell projection, cilium, flagellum {ECO:0000250|UniProtKB:G3UYQ4}

Background

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Images



Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (AKD1) Polyclonal Antibody, Unconjugated (AP94032) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.