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PANK4 Rabbit pAb

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Catalog # AP58970

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9NVE7
Reactivity	Rat
Predicted	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	85991
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PANK4
Epitope Specificity	101-200/773
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm (Probable).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	PANK4 belongs to the pantothenate kinase family. Pantothenate kinase is a key regulatory enzyme in the physiological regulation of the intracellular coenzyme A (CoA) concentration. It catalyzes the first committed step in the universal biosynthetic pathway leading to CoA and is itself subject to regulation through feedback inhibition by CoA. This family member is most abundant in muscle but is expressed in all tissues.

Additional Information

Gene ID	55229
Other Names	4'-phosphopantetheine phosphatase, 3.1.3.-, Inactive pantothenic acid kinase 4, hPanK4, PANK4 (HGNC:19366)
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	PANK4 (HGNC:19366)

Function	Phosphatase which shows a preference for 4'- phosphopantetheine and its oxidatively damaged forms (sulfonate or S- sulfonate), providing strong indirect evidence that the phosphatase activity pre-empts damage in the coenzyme A (CoA) pathway (PubMed:27322068). Hydrolyzing excess 4'-phosphopantetheine could constitute a directed overflow mechanism to prevent its oxidation to the S-sulfonate, sulfonate, or other forms (PubMed:27322068). Hydrolyzing 4'-phosphopantetheine sulfonate or S-sulfonate would forestall their conversion to inactive forms of CoA and acyl carrier protein (PubMed:27322068). May play a role in the physiological regulation of CoA intracellular levels (Probable).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:Q923S8}.
Tissue Location	Widely expressed with high expression in the muscle (PubMed:11479594). Expressed in the retina and lens epithelium, mainly in ganglion cell layer, outer plexiform layer and retinal pigment layer (at protein level) (PubMed:30585370).

Background

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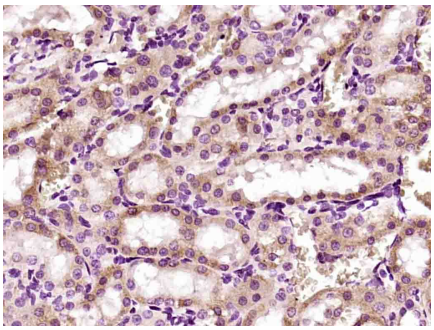
Images



Paraformaldehyde-fixed, paraffin embedded (rat kidney); 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 (PANK4) Polyclonal Antibody, Unconjugated (AP58970) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.