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FLVCR Rabbit pAb

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Catalog # AP54831

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9Y5Y0
Reactivity	Rat, Human, Mouse
Predicted	Pig, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59863
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from Human FLVCR
Epitope Specificity	451-550/555
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	Cell membrane.
DISEASE	Defects in FLVCR1 are the cause of posterior column ataxia with retinitis pigmentosa (PCARP) [MIM:609033]. A neurodegenerative syndrome beginning in infancy with areflexia and retinitis pigmentosa. Nyctalopia (night blindness) and peripheral visual field loss are usually evident during late childhood or teenage years, with subsequent progressive constriction of the visual fields and loss of central retinal function over time. A sensory ataxia caused by degeneration of the posterior columns of the spinal cord results in a loss of proprioceptive sensation that is clinically evident in the second decade of life and gradually progresses. Scoliosis, camptodactyly, achalasia, gastrointestinal dysmotility, and a sensory peripheral neuropathy are variable features of the disease. Affected individuals have no clinical or radiological evidence of cerebral or cerebellar involvement. Note=Defective neuronal heme transmembrane export due to FLVCR1 mutations may abrogate the neuroprotective effects of neuroglobin and initiate an apoptotic cascade that results in the selective degeneration of photoreceptors in the neurosensory retina and sensory neurons in the posterior spinal cord.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	FLVCR is responsible for the exportation of cytoplasmic heme groups. It is believed that it may protect developing erythroid cells from heme toxicity. Expression of FLVCR in cells will cause susceptibility to FeLV-C (Feline leukemia virus subgroup C) in vitro. FLVCR is found in all hematopoietic tissues, including peripheral blood lymphocytes and fetal liver, and some expression is found in pancreas and kidney. It is down-regulated in haemopoietic progenitor cells undergoing differentiation and hemoglobinization.

Additional Information

Gene ID	28982
Other Names	Choline/ethanolamine transporter FLVCR1, Feline leukemia virus subgroup C receptor-related protein 1, Feline leukemia virus subgroup C receptor, hFLVCR, Heme transporter FLVCR1, FLVCR1 {ECO:0000303|PubMed:16439531, ECO:0000312|HGNC:HGNC:24682}
Dilution	WB=1:500-2000,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	FLVCR1 {ECO:0000303|PubMed:16439531, ECO:0000312|HGNC:HGNC:24682}
Function	Uniporter that mediates the transport of extracellular choline and ethanolamine into cells, thereby playing a key role in phospholipid biosynthesis (PubMed:37100056, PubMed:38693265, PubMed:38778100, PubMed:39306721, PubMed:40972734). Choline and ethanolamine are the precursors of phosphatidylcholine and phosphatidylethanolamine, respectively, the two most abundant phospholipids (PubMed:38693265, PubMed:38778100). Transport is not coupled with proton transport and is exclusively driven by the choline (or ethanolamine) gradient across the plasma membrane (PubMed:38693265, PubMed:38778100). Also acts as a heme b transporter that mediates heme efflux from the cytoplasm to the extracellular compartment (PubMed:15369674, PubMed:20610401, PubMed:22483575, PubMed:23187127, PubMed:27923065).
Cellular Location	[Isoform 1]: Cell membrane; Multi-pass membrane protein
Tissue Location	Found all hematopoietic tissues including peripheral blood lymphocytes. Some expression is found in pancreas and kidney.

Background

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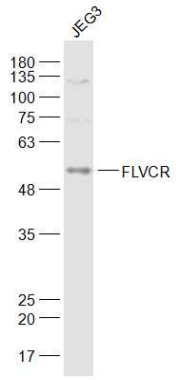
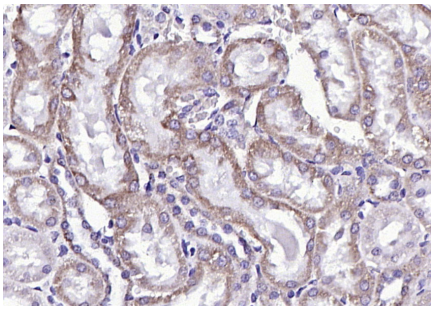
Images

Sample:
JEG3(Human) Cell Lysate at 30 ug
Primary: Anti-FLVCR (AP54831) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 60 kD
Observed band size: 60 kD





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 (FLVCR) Polyclonal Antibody, Unconjugated (AP54831) at 1:200 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'.