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ABCG4 Rabbit pAb

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Catalog # AP56642

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9H172
Reactivity	Rat
Predicted	Human, Mouse, Dog, Pig, Horse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	71896
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ABCG4
Epitope Specificity	551-646/646
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	Membrane; Multi-pass membrane protein (Probable).
SIMILARITY	Belongs to the ABC transporter superfamily. ABCG family. Eye pigment precursor importer (TC 3.A.1.204) subfamily.Contains 1 ABC transmembrane type-2 domain.Contains 1 ABC transporter domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	he ATP binding cassette (ABC) superfamily of membrane transporters is one of the largest protein classes known, and counts for numerous proteins involved in trafficking of biological molecules across membranes. ABCG4 protein is highly expressed in both human and mouse brain, it is a 646aa molecule in human (chr 11q23) and mouse. It is an integral membrane protein may be involved in macrophage lipid homeostasis. The ABCG4 protein's abundant expression in brain and close evolutionary relationship to the other members of the subfamily suggests a potential role in cholesterol transport.

Additional Information

Gene ID	64137
Other Names	ATP-binding cassette sub-family G member 4, 7.6.2.-, ABCG4 (HGNC:13884), WHITE2
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	ABCG4 (HGNC:13884)
Synonyms	WHITE2
Function	ATP-dependent transporter of the ATP-binding cassette (ABC) family that may be involved in the cellular efflux of sterols, in particular cholesterol and desmosterol (a cholesterol precursor), to high-density lipoprotein (HDL) (PubMed:15240127, PubMed:33141061). May play an important role in the removal of amyloid-beta peptides from brain, in a process that can be antagonized by desmosterol. However it is unclear whether ABCG4 can directly transport amyloid-beta peptides or whether peptide export may be facilitated due to changes in the membrane lipid environment (By similarity). Induces apoptosis in various cells (PubMed:27228027).
Cellular Location	Cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:Q91WA9}; Multi-pass membrane protein. Endosome membrane {ECO:0000250|UniProtKB:Q91WA9}; Multi-pass membrane protein
Tissue Location	Expressed specifically in the brain and the eye.

Background

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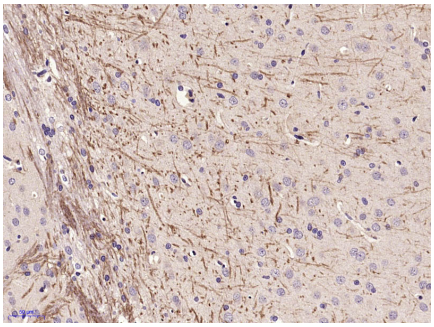
Images



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by microwave in sodium citrate buffer (pH6.0) ; Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes; Blocking buffer (3% BSA) at RT for 30min; Antibody incubation with (ABCG4) Polyclonal Antibody, Unconjugated (AP56642) at 1:400 overnight at 4℃, followed by conjugation to the secondary antibody (labeled with HRP)and DAB staining.