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ABCD3 Rabbit pAb

Catalog # AP97472

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P28288
Other Accession	P28288
Reactivity	Human
Predicted	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	75476
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PXMP1/ABCD3
Epitope Specificity	51-160/659
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the ABC transporter superfamily. ABCD family. Peroxisomal fatty acyl CoA transporter (TC 3.A.1.203) subfamily.Contains 1 ABC transmembrane type-1 domain. Contains 1 ABC transporter domain.
SUBUNIT	Can form heterodimers with ABCD1/ALD and ABCD2/ALDR. Dimerization is necessary to form an active transporter. Interacts with PEX19.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The peroxisomal membrane contains several ATP-binding cassette (ABC) transporters, ABCD1-4 that are known to be present in the human peroxisome membrane. All four proteins are ABC half-transporters, which dimerize to form an active transporter. A mutation in the ABCD1 gene causes X-linked adreno-leukodystrophy (X-ALD), a peroxisomal disorder which affects lipid storage. ABCD2 in mouse is expressed at high levels in the brain and adrenal organs, which are adversely affected in X-ALD. The peroxisomal membrane comprises two quantitatively major proteins, PMP22 and ABCD3. ABCD3 is associated with irregularly shaped vesicles which may be defective peroxisomes or peroxisome precursors. ABCD1 localizes to peroxisomes. ABCB7 is a half-transporter involved in the transport of heme from the mitochondria to the cytosol.

Additional Information

Gene ID	5825
Other Names	I79_023932; ABC43; CBAS5; PMP70; PXMP1; ZWS2; PMP68; ABCD3_HUMAN; ABCD3; 70 kDa peroxisomal membrane protein (PMP70); 3.1.2.-; 7.6.2.-; ABCD3_MOUSE; 68 kDa peroxisomal membrane protein (PMP68); ABCD3_RAT; ATP binding cassette subfamily D member 3; ATP-binding cassette, sub-family D (ALD), member 3; peroxisomal membrane protein 1 (70kD, Zellweger

	syndrome); peroxisomal membrane protein 70 kDa
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	ABCD3 {ECO:0000303|PubMed:39223112, ECO:0000312|HGNC:HGNC:67}
Function	ATP-dependent transporter of the ATP-binding cassette (ABC) family that catalyzes the transport of long- and very-long-chain fatty acyl-CoAs and probably bile acyl-CoAs from the cytosol to the peroxisome matrix for beta-oxydation. Appears to be specifically involved in the peroxisomal transport of branched-chain fatty acyl-CoAs (BCFA-CoAs) and dicarboxylic acyl CoAs (DCA-CoAs) (PubMed:11248239, PubMed:23671276, PubMed:24333844, PubMed:25168382, PubMed:29397936, PubMed:39223112, PubMed:41428872). Has fatty acyl-CoA thioesterase and ATPase activities. Probably hydrolyzes fatty acyl-CoAs into free fatty acids prior to their ATP-dependent transport into peroxisomes.
Cellular Location	Peroxisome membrane; Multi-pass membrane protein

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