

Goat Anti-ABCD4 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1013a

Specification

Goat Anti-ABCD4 Antibody - Product Information

Application	WB
Primary Accession	O14678
Other Accession	NP_005041 , 5826 , 19300 (mouse) , 299196 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	68597

Goat Anti-ABCD4 Antibody - Additional Information

Gene ID 5826

Other Names

ATP-binding cassette sub-family D member 4, PMP70-related protein, P70R, Peroxisomal membrane protein 1-like, PXMP1-L, Peroxisomal membrane protein 69, PMP69, ABCD4, PXMP1L

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-ABCD4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-ABCD4 Antibody - Protein Information

Name ABCD4 ([HGNC:68](#))

Synonyms PXMP1L

Function

Lysosomal membrane protein that transports cobalamin (Vitamin B12) from the lysosomal lumen to the cytosol in an ATP-dependent manner (PubMed:22922874, PubMed:28572511, PubMed:31467407, PubMed:33845046). Targeted by LMBRD1 lysosomal chaperone from the endoplasmic reticulum to the lysosomal membrane (PubMed:27456980). Then forms a complex with lysosomal chaperone LMBRD1 and cytosolic MMACHC to transport cobalamin across the lysosomal membrane (PubMed:25535791).

Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein. Note=Targeted by LMBRD1 lysosomal chaperone to the lysosomal membrane.

Tissue Location

Ubiquitous.

Goat Anti-ABCD4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-ABCD4 Antibody - Images



AF1013a (0.3 µg/ml) staining of Jurkat lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected with chemiluminescence.

Goat Anti-ABCD4 Antibody - Background

The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the ALD subfamily, which is involved in peroxisomal import of fatty acids and/or fatty acyl-CoAs in the organelle. All known peroxisomal ABC transporters are half

transporters which require a partner half transporter molecule to form a functional homodimeric or heterodimeric transporter. The function of this peroxisomal membrane protein is unknown. However, it is speculated that it may function as a heterodimer for another peroxisomal ABC transporter and, therefore, may modify the adrenoleukodystrophy phenotype. It may also play a role in the process of peroxisome biogenesis. Alternative splicing results in at least two different transcript variants, one which is protein-coding and one which is probably not protein-coding.

Goat Anti-ABCD4 Antibody - References

Identification of novel SNPs of ABCD1, ABCD2, ABCD3, and ABCD4 genes in patients with X-linked adrenoleukodystrophy (ALD) based on comprehensive resequencing and association studies with ALD phenotypes. Matsukawa T, et al. *Neurogenetics*, 2010 Jul 27. PMID 20661612.

Association study between single-nucleotide polymorphisms in 199 drug-related genes and commonly measured quantitative traits of 752 healthy Japanese subjects. Saito A, et al. *J Hum Genet*, 2009 Jun. PMID 19343046.

Toward a confocal subcellular atlas of the human proteome. Barbe L, et al. *Mol Cell Proteomics*, 2008 Mar. PMID 18029348.

Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. Kimura K, et al. *Genome Res*, 2006 Jan. PMID 16344560.

A human protein-protein interaction network: a resource for annotating the proteome. Stelzl U, et al. *Cell*, 2005 Sep 23. PMID 16169070.