

**ABCD4 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP9267c****Specification**

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**ABCD4 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [O14678](#)**ABCD4 Antibody (Center) Blocking Peptide - 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

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP9267c](/products/AP9267c) was selected from the Center region of human ABCD4. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**ABCD4 Antibody (Center) Blocking Peptide - 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](http://www.uniprot.org/citations/22922874), PubMed: [28572511](http://www.uniprot.org/citations/28572511), PubMed: [31467407](http://www.uniprot.org/citations/31467407), PubMed: [33845046](http://www.uniprot.org/citations/33845046)). Targeted by LMBRD1 lysosomal chaperone from the endoplasmic reticulum to the lysosomal membrane (PubMed: [27456980](http://www.uniprot.org/citations/27456980)). Then forms a complex with lysosomal chaperone LMBRD1 and cytosolic MMACHC to transport

cobalamin across the lysosomal membrane (PubMed:<a href="http://www.uniprot.org/citations/25535791" target="\_blank">25535791</a>).

**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.

**ABCD4 Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**ABCD4 Antibody (Center) Blocking Peptide - Images****ABCD4 Antibody (Center) Blocking Peptide - Background**

ABCD4 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.

**ABCD4 Antibody (Center) Blocking Peptide - References**

Saito,A., et.al, J. Hum. Genet. 54 (6), 317-323 (2009) Asheuer,M., et.al. Hum. Mol. Genet. 14 (10), 1293-1303 (2005) Kuiper,H., et.al, Cytogenet. Genome Res. 109 (4), 533 (2005)