

ABCD2 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP12623b**Specification**

ABCD2 Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [Q9UBJ2](#)**ABCD2 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 225**Other Names**

ATP-binding cassette sub-family D member 2, Adrenoleukodystrophy-like 1, Adrenoleukodystrophy-related protein, hALDR, ABCD2, ALD1, ALDL1, ALDR, ALDRP

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.

ABCD2 Antibody (C-term) Blocking peptide - Protein Information**Name** ABCD2 ([HGNC:66](#))**Function**

ATP-dependent transporter of the ATP-binding cassette (ABC) family involved in the transport of very long chain fatty acid (VLCFA)- CoA from the cytosol to the peroxisome lumen (PubMed:21145416, PubMed:29397936). Like ABCD1 seems to have fatty acyl-CoA thioesterase (ACOT) and ATPase activities, according to this model, VLCFA-CoA as free VLCFA is transported in an ATP-dependent manner into peroxisomes after the hydrolysis of VLCFA-CoA mediated by the ACOT activity of ABCD2 (Probable) (PubMed:29397936). Shows overlapping substrate specificities with ABCD1 toward saturated fatty acids (FA) and monounsaturated FA (MUFA) but has a distinct substrate preference for shorter VLCFA (C22:0) and polyunsaturated fatty acid (PUFA) such as C22:6-CoA and C24:6-CoA (in vitro) (PubMed:21145416). Thus, may play a role in regulation of VLCFAs and energy metabolism namely, in the degradation and biosynthesis of fatty acids by beta-oxidation (PubMed:21145416).

Cellular Location

Peroxisome membrane; Multi-pass membrane protein

Tissue Location

Predominantly expressed in brain and heart.

ABCD2 Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

ABCD2 Antibody (C-term) Blocking peptide - Images

ABCD2 Antibody (C-term) Blocking peptide - 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, this protein is speculated to function as a dimerization partner of ABCD1 and/or other peroxisomal ABC transporters. Mutations in this gene have been observed in patients with adrenoleukodystrophy, a severe demyelinating disease. This gene has been identified as a candidate for a modifier gene, accounting for the extreme variation among adrenoleukodystrophy phenotypes. This gene is also a candidate for a complement group of Zellweger syndrome, a genetically heterogeneous disorder of peroxisomal biogenesis.

ABCD2 Antibody (C-term) Blocking peptide - References

Matsukawa, T., et al. Neurogenetics (2010) In press : Saito, A., et al. J. Hum. Genet. 54(6):317-323(2009) Maier, E.M., et al. Biochem. Biophys. Res. Commun. 377(1):176-180(2008) Lu, Y., et al. J. Lipid Res. 49(12):2582-2589(2008) Petroni, A., et al. J. Inher. Metab. Dis. 30 (5), 828 (2007) :