

ABCD2 Rabbit Polyclonal Antibody

Rabbit Polyclonal Antibody Catalog # AP93286

Specification

ABCD2 Rabbit Polyclonal Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW WB, E <u>O9UBJ2</u> Human, Mouse, Rat Rabbit Polyclonal 81kD KDa

ABCD2 Rabbit Polyclonal Antibody - Additional Information

Gene ID 225

Other Names ABCD2 ALD1 ALDL1 ALDR ALDRP

Dilution WB~~1:1000 E~~N/A

Format Liquid in PBS containing 50% glycerol, and 0.02% New type preservative N.

Storage Conditions -20°C

ABCD2 Rabbit Polyclonal Antibody - 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 transpoted 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 Rabbit Polyclonal Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ABCD2 Rabbit Polyclonal Antibody - Images

ABCD2 Rabbit Polyclonal 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 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