

## **ABCD2 Antibody (Center)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP9627c

## **Specification**

## **ABCD2 Antibody (Center) - Product Information**

Application WB,E
Primary Accession Q9UBJ2

Other Accession
Reactivity
Q90Y44, Q61285
Human, Mouse

Predicted Rat
Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 83233
Antigen Region 269-298

# **ABCD2 Antibody (Center) - 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

## Target/Specificity

This ABCD2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 269-298 amino acids from the Central region of human ABCD2.

#### **Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

## **Storage**

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

### **Precautions**

ABCD2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

## **ABCD2 Antibody (Center) - 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**

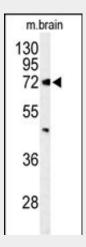
Predominantly expressed in brain and heart.

## **ABCD2 Antibody (Center) - Protocols**

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

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

## ABCD2 Antibody (Center) - Images



Western blot analysis of ABCD2 Antibody (Center) (Cat. #AP9627c) in mouse brain tissue lysates (35ug/lane). ABCD2 (arrow) was detected using the purified Pab.

#### ABCD2 Antibody (Center) - Background

ABCD2 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





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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.

# **ABCD2 Antibody (Center) - References**

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)