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ABCD1 / ALD Antibody
Rabbit mAb
Catalog # AP93103

Specification

ABCD1 / ALD Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P33897
Reactivity	**Rat**
Clonality	**Monoclonal**
Other Names	
ABC42; Abcd1; ALD; Aldgh; ALDP; AMN;	
Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**82937 Da**

ABCD1 / ALD Antibody - Additional Information

Dilution	**WB~~1:1000 FC~~1:10~50 ICC~~N/A**
Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human ABCD1 / ALD**
Description	**Probable transporter. The nucleotide-binding fold acts as an ATP-binding subunit with ATPase activity.**
Storage Condition and Buffer	**Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

ABCD1 / ALD Antibody - Protein Information

Name ABCD1 (HGNC:61)

Synonyms ALD

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:11248239, PubMed:15682271, PubMed:16946495, PubMed:18757502, PubMed:21145416, PubMed:23671276, PubMed:<a

href="http://www.uniprot.org/citations/29397936" target="_blank">29397936, PubMed:33500543). Coupled to the ATP- dependent transporter activity also has a fatty acyl-CoA thioesterase activity (ACOT) and hydrolyzes VLCFA-CoA into VLCFA prior their ATP- dependent transport into peroxisomes, the ACOT activity is essential during this transport process (PubMed:29397936, PubMed:33500543). Thus, plays a role in regulation of VLCFAs and energy metabolism namely, in the degradation and biosynthesis of fatty acids by beta-oxidation, mitochondrial function and microsomal fatty acid elongation (PubMed:21145416, PubMed:23671276). Involved in several processes; namely, controls the active myelination phase by negatively regulating the microsomal fatty acid elongation activity and may also play a role in axon and myelin maintenance. Also controls the cellular response to oxidative stress by regulating mitochondrial functions such as mitochondrial oxidative phosphorylation and depolarization. And finally controls the inflammatory response by positively regulating peroxisomal beta-oxidation of VLCFAs (By similarity).

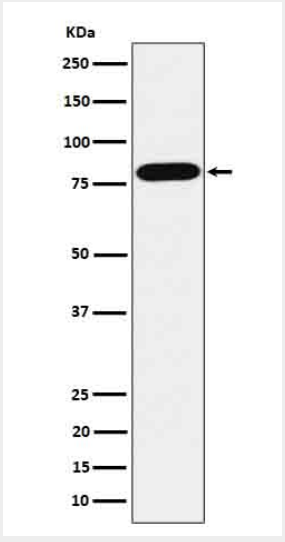
Cellular Location
Peroxisome membrane; Multi-pass membrane protein. Mitochondrion membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein Endoplasmic reticulum membrane; Multi- pass membrane protein

ABCD1 / ALD 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 Cytomety
- Cell Culture

ABCD1 / ALD Antibody - Images



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Western blot analysis of ABCD1 / ALD in HepG2 cell lysate.