

Product Name: ABCD1 / ALD (12L9) Rabbit Monoclonal Antibody
Catalog #: AMRe06414

Summary

| | |
|------------------------|---|
| Production Name | ABCD1 / ALD (12L9) Rabbit Monoclonal Antibody |
| Description | Rabbit Monoclonal Antibody |
| Host | Rabbit |
| Application | WB |
| Reactivity | Human,Mouse,Rat |

Performance

| | |
|---------------------|--|
| Conjugation | Unconjugated |
| Modification | Unmodified |
| Isotype | IgG |
| Clonality | Monoclonal |
| Form | Liquid |
| Storage | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |
| Buffer | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle. |
| Purification | Affinity purification |

Immunogen

| | |
|--------------------------|--------------------------------------|
| Gene Name | ABCD1 |
| Alternative Names | ABC42; Abcd1; ALD; Aldgh; ALDP; AMN; |
| Gene ID | 215.0 |
| SwissProt ID | P33897. |

Application

| | |
|-------------------------|-----------------|
| Dilution Ratio | WB 1:500-1:2000 |
| Molecular Weight | 83kDa |

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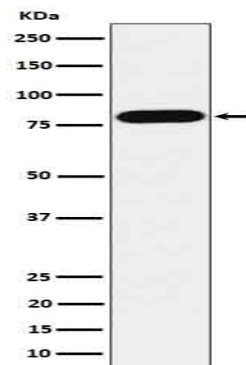
Background

Probable transporter. The nucleotide-binding fold acts as an ATP-binding subunit with ATPase activity. 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](http://www.uniprot.org/citations/11248239)), PubMed:[15682271](http://www.uniprot.org/citations/15682271), PubMed:[16946495](http://www.uniprot.org/citations/16946495), PubMed:[18757502](http://www.uniprot.org/citations/18757502), PubMed:[21145416](http://www.uniprot.org/citations/21145416), PubMed:[23671276](http://www.uniprot.org/citations/23671276), PubMed:[29397936](http://www.uniprot.org/citations/29397936), PubMed:[33500543](http://www.uniprot.org/citations/33500543)). Coupled to the ATP- dependent transporter activity has also 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:[33500543](http://www.uniprot.org/citations/33500543), PubMed:[29397936](http://www.uniprot.org/citations/29397936)). 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:[23671276](http://www.uniprot.org/citations/23671276), PubMed:[21145416](http://www.uniprot.org/citations/21145416)). 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. Controls also 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).

Research Area

Image Data

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

Note

For research use only.