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Anti-ABCD1 / ALD Rabbit Monoclonal Antibody

Catalog # ABO16628

Product Information

Application	WB, FC
Primary Accession	P33897
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-ABCD1 / ALD Rabbit Monoclonal Antibody . Tested in WB, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	215
Other Names	ATP-binding cassette sub-family D member 1 {ECO:0000312|HGNC:HGNC:61}, 3.1.2.-, 7.6.2.-, Adrenoleukodystrophy protein, ALDP, ABCD1 (HGNC:61), ALD
Calculated MW	82937
Application Details	WB 1:500-1:2000 ICC/IF 1:50-1:200 FC 1:50
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: 30A99
Immunogen	A synthesized peptide derived from human ABCD1 / ALD
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

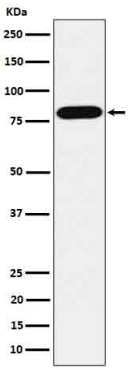
Name	ABCD1 (HGNC:61)
Synonyms	ALD
Function	ATP-dependent transporter of the ATP-binding cassette (ABC) family involved

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: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

Images



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.