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# ABCD1/ALD Rabbit mAb

Catalog # AP78833

## Product Information

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| **Application** | WB, FC, ICC |
| **Primary Accession** | P33897 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Monoclonal Antibody |
| **Calculated MW** | 82937 |

## Additional Information

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| **Gene ID** | 215 |
| **Other Names** | ABCD1 |
| **Dilution** | WB~~1/500-1/1000 FC~~1:10~50 ICC~~N/A |
| **Format** | 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol. |

## Protein Information

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| **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). |

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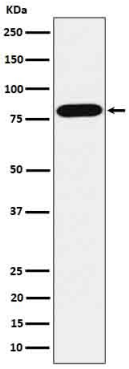
| **Cellular Location** | Peroxisome membrane; Multi-pass membrane protein. Mitochondrion membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein Endoplasmic reticulum membrane; Multi- pass membrane protein |

## Images

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