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Goat Anti-ABCD3 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1012a

Specification

Goat Anti-ABCD3 Antibody - Product Information

Application	**IHC, FC, Pep-ELISA**
Primary Accession	P28288
Other Accession	NP_002849, 5825, 19299 (mouse), 25270 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**75476**

Goat Anti-ABCD3 Antibody - Additional Information

Gene ID 5825

Other Names
ATP-binding cassette sub-family D member 3, 70 kDa peroxisomal membrane protein, PMP70, ABCD3, PMP70, PXMP1

Dilution
IHC~~1:100~500
FC~~1:10~50
Pep-ELISA~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-ABCD3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-ABCD3 Antibody - Protein Information

Name ABCD3 (HGNC:67)

Function

Broad substrate specificity ATP-dependent transporter of the ATP-binding cassette (ABC) family that catalyzes the transport of long- chain fatty acids (LCFA)-CoA, dicarboxylic acids-CoA, long-branched- chain fatty acids-CoA and bile acids from the cytosol to the peroxisome lumen for beta-oxydation (PubMed:11248239, PubMed:24333844, PubMed:25168382, PubMed:29397936). Has fatty acyl-CoA thioesterase and ATPase activities (PubMed:29397936). Probably hydrolyzes fatty acyl- CoAs into free fatty acids prior to their ATP-dependent transport into peroxisomes (By similarity). Thus, play a role in regulation of LCFAs and energy metabolism namely, in the degradation and biosynthesis of fatty acids by beta-oxidation (PubMed:24333844, PubMed:25944712).

Cellular Location
Peroxisome membrane; Multi-pass membrane protein

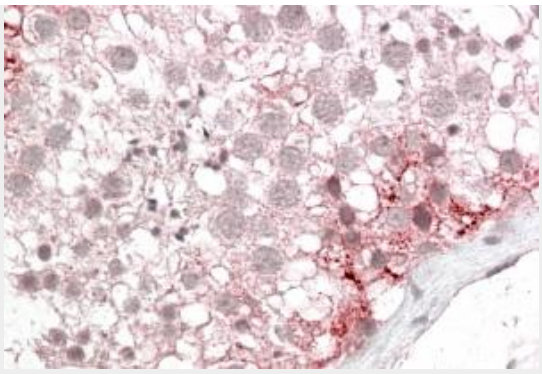
Goat Anti-ABCD3 Antibody - Protocols

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

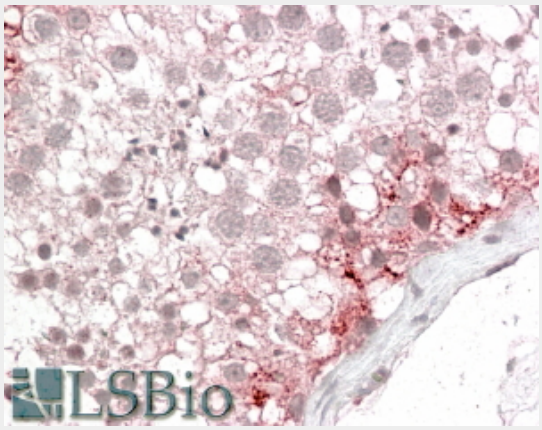
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-ABCD3 Antibody - Images

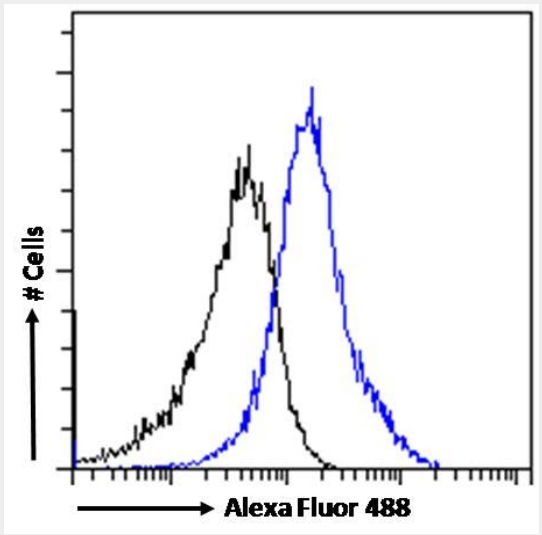
AF1012a (0.2 µg/ml) staining of Human Kidney lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF1012a (3.8 µg/ml) staining of paraffin embedded Human Testis. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



EB08710 (3.8µg/ml) staining of paraffin embedded Human Testis. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



EB08710 Flow cytometric analysis of paraformaldehyde fixed A431 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line) fol

Goat Anti-ABCD3 Antibody - Background

The protein encoded by this gene 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 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. This peroxisomal membrane protein likely plays an important role in peroxisome biogenesis. Mutations have been associated with some forms of Zellweger syndrome, a heterogeneous group of peroxisome assembly disorders. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

Goat Anti-ABCD3 Antibody - References

Identification of novel SNPs of ABCD1, ABCD2, ABCD3, and ABCD4 genes in patients with X-linked adrenoleukodystrophy (ALD) based on comprehensive resequencing and association studies with ALD phenotypes. Matsukawa T, et al. Neurogenetics, 2010 Jul 27. PMID 20661612.
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Multiple organelle-targeting signals in the N-terminal portion of peroxisomal membrane protein PMP70. Iwashita S, et al. J Biochem, 2010 Apr. PMID 20007743.
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