abcam

Product datasheet

Anti-ABCD1/ALD antibody [EPR15929] ab197013

Recombinant RabMAb

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Overview

Product name	Anti-ABCD1/ALD antibody [EPR15929]
Description	Rabbit monoclonal [EPR15929] to ABCD1/ALD
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HepG2 cells, HeLa cells, human fetal liver lysate; JAR cells; C6 cells, RAW 264.7 cells, PC-12 cells, NIH/3t3 cells. ICC/IF: MCF7 cells. Flow Cyt (intra): HeLa cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR15929
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab197013 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/10000. Detects a band of approximately 83 kDa (predicted molecular weight: 83 kDa).
ICC/IF		1/100.
Flow Cyt (Intra)		Use at an assay dependent concentration.

Target

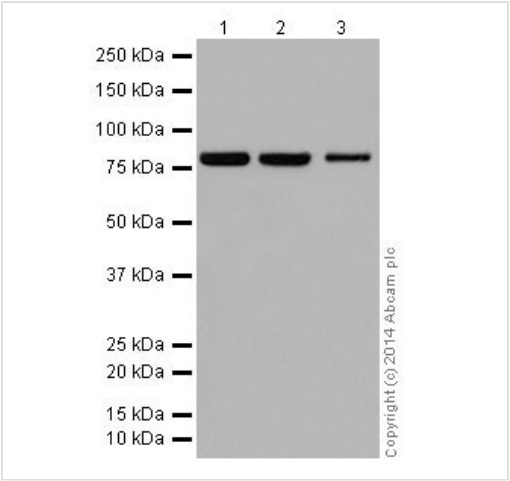
Function Probable transporter. The nucleotide-binding fold acts as an ATP-binding subunit with ATPase activity.

Involvement in disease Defects in ABCD1 are the cause of adrenoleukodystrophy X-linked (X-ALD) [MIM:300100]. X-ALD is a peroxisomal metabolic disorder characterized by progressive multifocal demyelination of the central nervous system and by peripheral adrenal insufficiency (Addison disease). It results in mental deterioration, corticospinal tract dysfunction, and cortical blindness. Different clinical manifestations exist like: cerebral childhood ALD (CALD), adult cerebral ALD (ACALD), adrenomyeloneuropathy (AMN) and 'Addison disease only' (ADO) phenotype.
Note=The promoter region of ABCD1 is deleted in the chromosome Xq28 deletion syndrome which involves ABCD1 and the neighboring gene BCAP31.

Sequence similarities Belongs to the ABC transporter superfamily. ABCD family. Peroxisomal fatty acyl CoA transporter (TC 3.A.1.203) subfamily.
Contains 1 ABC transmembrane type-1 domain.
Contains 1 ABC transporter domain.

Cellular localization Peroxisome membrane.

Images



Western blot - Anti-ABCD1/ALD antibody [EPR15929] (ab197013)

All lanes : Anti-ABCD1/ALD antibody [EPR15929] (ab197013) at 1/10000 dilution

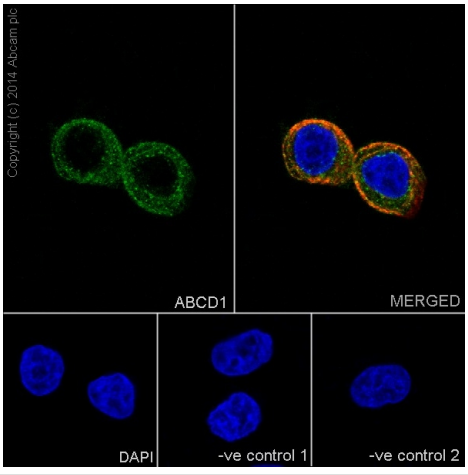
Lane 1 : HepG2 (Human liver hepatocellular carcinoma) whole cell lysate
Lane 2 : HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate
Lane 3 : Human fetal liver lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

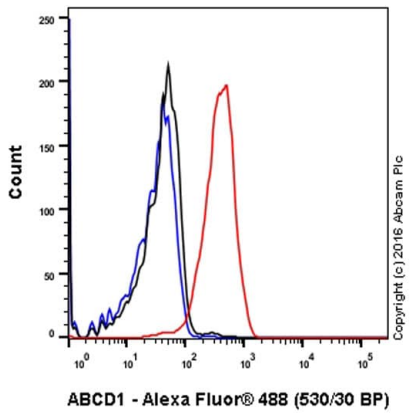
Predicted band size: 83 kDa
Observed band size: 83 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunocytochemistry/ Immunofluorescence - Anti-ABCD1/ALD antibody [EPR15929] (ab197013)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MCF7 (Human breast adenocarcinoma cell line) cells labeling ABCD1 / ALD with ab197013 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/500 dilution (green). Cytoplasm staining on MCF7 cell line is observed. The nuclear counter stain is DAPI (blue). Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution and **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows:
-ve control 1: ab197013 at 1/100 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.

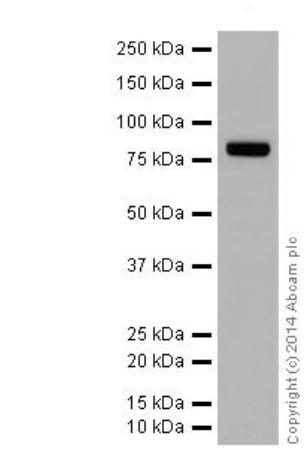


Flow Cytometry (Intracellular) - Anti-ABCD1/ALD antibody [EPR15929] (ab197013)

ab197013 staining ABCD1/ ALD in the human cell line HeLa (human cervix adenocarcinoma) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. The sample was incubated with the primary antibody at a dilution of 1/70. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isoytype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)



Western blot - Anti-ABCD1/ALD antibody [EPR15929] (ab197013)

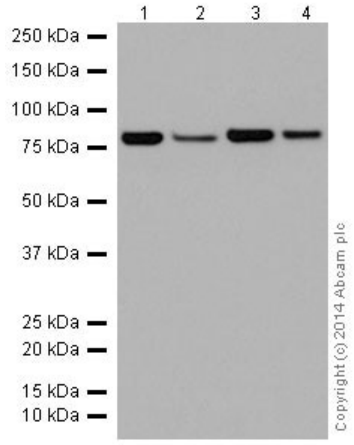
Anti-ABCD1/ALD antibody [EPR15929] (ab197013) at 1/10000 dilution + JAR (Human placenta choriocarcinoma cell line) whole cell lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 83 kDa
Observed band size: 83 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-ABCD1/ALD antibody [EPR15929] (ab197013)

All lanes : Anti-ABCD1/ALD antibody [EPR15929] (ab197013) at 1/10000 dilution

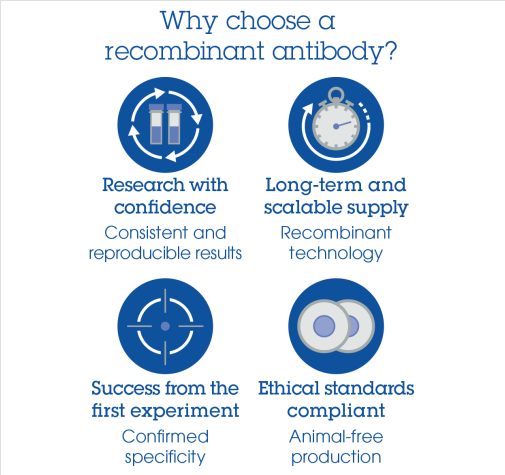
Lane 1 : C6 (Rat glial tumor cells) whole cell lysate
Lane 2 : RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate
Lane 3 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate
Lane 4 : NIH/3T3 (Mouse embyro fibroblast cells) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 83 kDa
Observed band size: 83 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-ABCD1/ALD antibody [EPR15929] (ab197013)

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