# abcam

## Product datasheet

## Alexa Fluor® 488 Anti-ABCD1/ALD antibody [EPR15929] ab225410

Recombinant RabMAb

## 3 Images

#### Overview

**Product name** Alexa Fluor® 488 Anti-ABCD1/ALD antibody [EPR15929]

**Description** Alexa Fluor® 488 Rabbit monoclonal [EPR15929] to ABCD1/ALD

**Host species** Rabbit

Conjugation Alexa Fluor® 488, Ex: 495nm, Em: 519nm

**Tested applications** Suitable for: Flow Cyt (Intra), ICC/IF

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat

Recombinant fragment within Human ABCD1/ALD aa 650 to the C-terminus. The exact **Immunogen** 

> immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please

contact our Scientific Support team to discuss your requirements.

Database link: P33897

Run BLAST with

Run BLAST with

Positive control

ICC/IF: HepG2 cells. Flow Cyt (intra): HepG2 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**.

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#### **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.

Avoid freeze / thaw cycle. Stable for 12 months at -20°C. Store In the Dark.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS

**Purity** Protein A purified

Clonality Monoclonal Clone number EPR15929

Isotype lgG

#### **Applications**

## The Abpromise guarantee

Our Abpromise guarantee covers the use of ab225410 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
Flow Cyt (Intra)		1/50.
ICC/IF		1/1000. This product gave a positive signal in HepG2 cells fixed with 4% formaldehyde (10 min) and 100% methanol (5 min)

## **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.

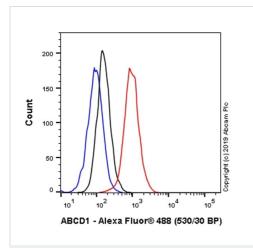
Contains 1 ABC transmembrane type-1 domain.

Contains 1 ABC transporter domain.

#### **Cellular localization**

Peroxisome membrane.

#### **Images**

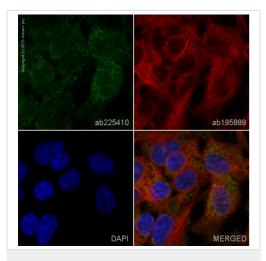


Flow Cytometry (Intracellular) - Alexa Fluor® 488 Anti-ABCD1/ALD antibody [EPR15929] (ab225410)

Overlay histogram showing HepG2 cells stained with ab225410 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab225410, 1/50 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor<sup>®</sup> 488 (<u>ab199091</u>) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter.

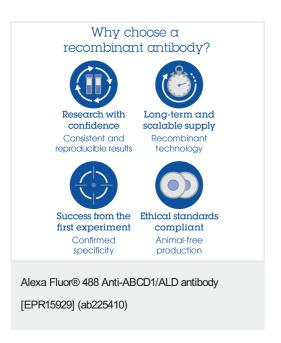


Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-ABCD1/ALD antibody [EPR15929] (ab225410)

ab225410 staining ABCD1/ALD in HepG2 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab225410 at 1/1000 dilution (shown in green) and <a href="mailto:ab195889">ab195889</a>, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in HepG2 cells fixed with 4% formaldehyde (10 min).



Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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