abcam

Product datasheet

Anti-PEX19 antibody [EPR9266(B)] ab137072

Recombinant RabMAb

★★★★★ 1 Abreviews 15 References

6 Images

Overview

Product name Anti-PEX19 antibody [EPR9266(B)]

Description Rabbit monoclonal [EPR9266(B)] to PEX19

Host species Rabbit

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

Unsuitable for: IHC-P

Species reactivity Reacts with: Rat. Human

Immunogen Synthetic peptide within Human PEX19 aa 1-100. The exact sequence is proprietary.

Database link: P40855

Positive control Jurkat, rat brain lysate, rat heart and MOLT4 cell lysates; Jurkat 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 $\mathsf{RabMAb}^{\texttt{®}}$ 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 Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

Purity Protein A purified

Clonality Monoclonal Clone number EPR9266(B)

Isotype ΙgG

Applications

The Abpromise quarantee

Our Abpromise guarantee covers the use of ab137072 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)		1/10 - 1/100. ab172730 - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.
IP		1/10 - 1/100.
ICC/IF		1/50 - 1/100.
WB	★★★★☆(1)	1/1000 - 1/10000. Predicted molecular weight: 33 kDa.

Application notes

Is unsuitable for IHC-P.

Target

Function

Necessary for early peroxisomal biogenesis. Acts both as a cytosolic chaperone and as an import receptor for peroxisomal membrane proteins (PMPs). Binds and stabilizes newly synthesized PMPs in the cytoplasm by interacting with their hydrophobic membrane-spanning domains, and targets them to the peroxisome membrane by binding to the integral membrane protein PEX3. Excludes CDKN2A from the nucleus and prevents its interaction with MDM2, which results in active degradation of TP53.

Tissue specificity

Ubiquitously expressed. Isoform 1 is strongly predominant in all tissues except in utero where isoform 2 is the main form.

Involvement in disease

Defects in PEX19 are the cause of peroxisome biogenesis disorder complementation group 14 (PBD-CG14) [MIM:600279]; also known as PBD-CGJ. PBD refers to a group of peroxisomal disorders arising from a failure of protein import into the peroxisomal membrane or matrix. The PBD group is comprised of four disorders: Zellweger syndrome (ZWS), neonatal adrenoleukodystrophy (NALD), infantile Refsum disease (IRD), and classical rhizomelic chondrodysplasia punctata (RCDP). ZWS, NALD and IRD are distinct from RCDP and constitute a clinical continuum of overlapping phenotypes known as the Zellweger spectrum. The PBD group is genetically heterogeneous with at least 14 distinct genetic groups as concluded from complementation studies.

Defects in PEX19 are a cause of Zellweger syndrome (ZWS) [MIM:214100]. ZWS is a fatal peroxisome biogenesis disorder characterized by dysmorphic facial features, hepatomegaly, ocular abnormalities, renal cysts, hearing impairment, profound psychomotor retardation, severe hypotonia and neonatal seizures. Death occurs within the first year of life.

Sequence similarities

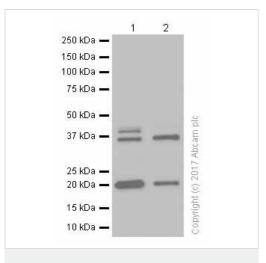
Belongs to the peroxin-19 family.

Cellular localization

Cytoplasm. Peroxisome membrane. Mainly cytoplasmic. Some fraction membrane-associated to

the outer surface of peroxisomes.

Images



Western blot - Anti-PEX19 antibody [EPR9266(B)] (ab137072)

All lanes: Anti-PEX19 antibody [EPR9266(B)] (ab137072) at 1/1000 dilution (Purified)

Lane 1: Jurkat (Human T cell leukemia T lymphocyte) whole cell lysates with 5% NFDM/TBST

Lane 2 : MOLT-4 (Human lymphoblastic leukemia T lymphoblast) whole cell lysates with 5% NFDM/TBST

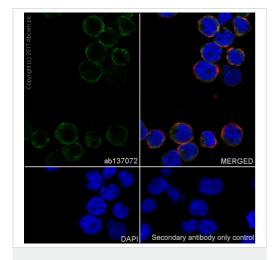
Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution (Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated)

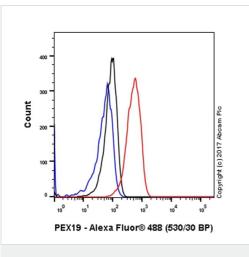
Predicted band size: 33 kDa **Observed band size:** 35,40 kDa

The doublets are reported by PMID: 9339377, 28817674 and 10051604



Immunocytochemistry/ Immunofluorescence - Anti-PEX19 antibody [EPR9266(B)] (ab137072)

Immunocytochemistry/ Immunofluorescence analysis of MOLT-4 (Human lymphoblastic leukemia T lymphoblast) cells labeling PEX19 with Purified ab137072 at 1:100 (10.2 μ g/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 μ g/ml). Goat anti rabbit lgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 μ g/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-PEX19 antibody [EPR9266(B)] (ab137072)

Intracellular Flow Cytometry analysis of A549 (Human lung carcinoma epithelial cell) cells labeling PEX19 with purified ab137072 at 1/100 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit lgG (Alexa Fluor[®] 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal lgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-PEX19 antibody [EPR9266(B)] (ab137072)

All lanes : Anti-PEX19 antibody [EPR9266(B)] (ab137072) at 1/2000 dilution (Purified)

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates with 5% NFDM/TBST

Lane 2: Rat brain lysates with 5% NFDM/TBST Lane 3: Rat heart lysates with 5% NFDM/TBST

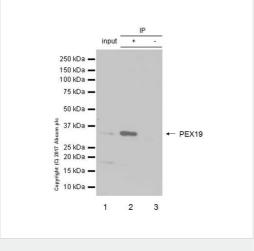
Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 33 kDa **Observed band size:** 35,40 kDa

The doublets are reported by PMID: 9339377, 28817674 and 10051604



Immunoprecipitation - Anti-PEX19 antibody [EPR9266(B)] (ab137072)

ab137072 (purified) at 1:50 dilution ($2\mu g$) immunoprecipitating PEX19 in MOLT-4 whole cell lysate.

Lane 1 (input): MOLT-4 (Human lymphoblastic leukemia T lymphoblast) whole cell lysate 10µg

Lane 2 (+): ab137072 & MOLT-4 whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of

ab137072 in MOLT-4 whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP)

(ab131366) was used for detection at 1:1000 dilution.

Blocking and diluting buffer: 5% NFDM/TBST.



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