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PEX14 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9150b

Specification

PEX14 Antibody (C-term) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	O75381
Other Accession	Q642G4, Q9R0A0
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**41237**
Antigen Region	**343-370**

PEX14 Antibody (C-term) - Additional Information

Gene ID 5195

Other Names
Peroxisomal membrane protein PEX14, PTS1 receptor-docking protein, Peroxin-14, Peroxisomal membrane anchor protein PEX14, PEX14

Target/Specificity
This PEX14 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 343-370 amino acids from the C-terminal region of human PEX14.

Dilution
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
PEX14 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PEX14 Antibody (C-term) - Protein Information

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Name PEX14 {ECO:0000303|PubMed:9653144, ECO:0000312|HGNC:HGNC:8856}

Function Component of the PEX13-PEX14 docking complex, a translocon channel that specifically mediates the import of peroxisomal cargo proteins bound to PEX5 receptor (PubMed:9653144, PubMed:24235149, PubMed:28765278). The PEX13-PEX14 docking complex forms a large import pore which can be opened to a diameter of about 9 nm (By similarity). Mechanistically, PEX5 receptor along with cargo proteins associates with the PEX14 subunit of the PEX13-PEX14 docking complex in the cytosol, leading to the insertion of the receptor into the organelle membrane with the concomitant translocation of the cargo into the peroxisome matrix (PubMed:24235149, PubMed:28765278). Plays a key role for peroxisome movement through a direct interaction with tubulin (PubMed:21525035).

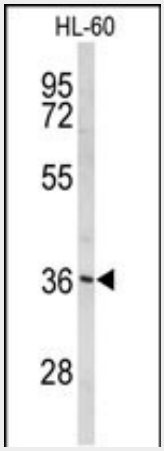
Cellular Location
Peroxisome membrane; Single-pass membrane protein {ECO:0000250|UniProtKB:Q642G4}

PEX14 Antibody (C-term) - 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

PEX14 Antibody (C-term) - Images



Western blot analysis of PEX14 Antibody (C-term) (Cat. #AP9150b) in HL-60 cell line lysates (35ug/lane). PEX14 (arrow) was detected using the purified Pab.

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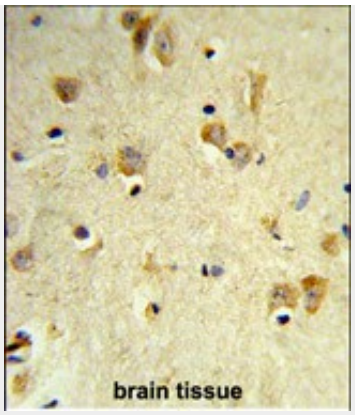
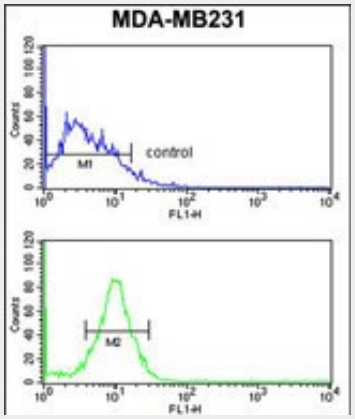


Formalin-fixed and paraffin-embedded human brain tissue reacted with PEX14 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



PEX14 Antibody (C-term) (Cat. #AP9150b) flow cytometry analysis of MDA-MB231 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

PEX14 Antibody (C-term) - Background

PEX14 belongs to the peroxin 14 family. It is a component of the peroxisomal translocation machinery with PEX13 and PEX17 and interacts with both the PTS1 and PTS2 receptors. PEX14 binds directly to PEX17.
Defects in PEX14 are the cause of peroxisome biogenesis disorder complementation group K (PBD-CGK) [MIM:601791] and Zellweger syndrome (ZWS) [MIM:214100].

PEX14 Antibody (C-term) - References

Neufeld C., et.al., EMBO J. 28:745-754(2009).