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Anti-PEX14 Antibody

Catalog # AP51423

Product Information

Application	WB, IHC, IF/IC
Primary Accession	O75381
Reactivity	Human, Rat, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41237

Additional Information

Gene ID	5195
Other Names	Peroxisomal membrane protein PEX14; PTS1 receptor-docking protein; Peroxin-14; Peroxisomal membrane anchor protein PEX14
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PEX14. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

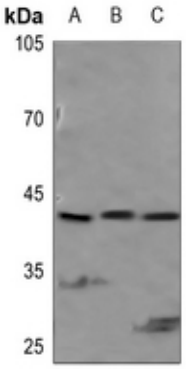
Protein Information

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:24235149, PubMed:28765278, PubMed:9653144). 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}

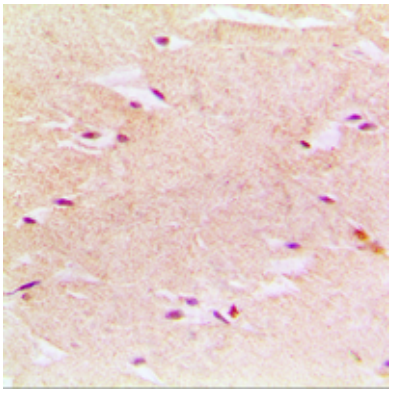
References

Fransen M.,et al.Proc. Natl. Acad. Sci. U.S.A. 95:8087-8092(1998).
Shimizu N.,et al.J. Biol. Chem. 274:12593-12604(1999).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Halleck A.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Gregory S.G.,et al.Nature 441:315-321(2006).

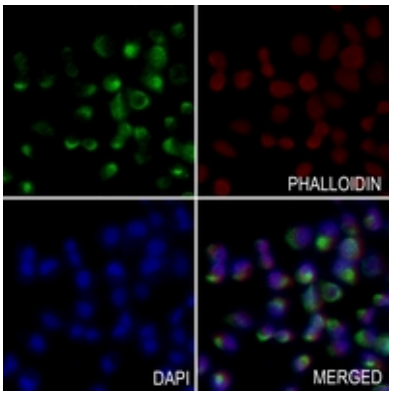
Images



Western blot analysis of PEX14 expression in HEK293T (A), A549 (B), rat testis (C) whole cell lysates. (Predicted band size: 41 kD; Observed band size: 41 kD)



Immunohistochemical analysis of PEX14 staining in human muscle formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of PEX14 staining in A2780 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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