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PEX1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10181c

Product Information

Application	WB, E
Primary Accession	O43933
Other Accession	NP_000457.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23674
Calculated MW	142867
Antigen Region	599-628

Additional Information

Gene ID	5189
Other Names	Peroxisome biogenesis factor 1, Peroxin-1, Peroxisome biogenesis disorder protein 1, PEX1
Target/Specificity	This PEX1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 599-628 amino acids from the Central region of human PEX1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
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	PEX1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PEX1 {ECO:0000303|PubMed:9398848, ECO:0000312|HGNC:HGNC:8850}
Function	Component of the PEX1-PEX6 AAA ATPase complex, a protein dislocase complex that mediates the ATP-dependent extraction of the PEX5 receptor from peroxisomal membranes, an essential step for PEX5 recycling

	(PubMed:11439091, PubMed:16314507, PubMed:16854980, PubMed:21362118, PubMed:29884772). Specifically recognizes PEX5 monoubiquitinated at 'Cys-11', and pulls it out of the peroxisome lumen through the PEX2-PEX10-PEX12 retrotranslocation channel (PubMed:29884772). Extraction by the PEX1-PEX6 AAA ATPase complex is accompanied by unfolding of the TPR repeats and release of bound cargo from PEX5 (PubMed:29884772).
Cellular Location	Cytoplasm, cytosol. Peroxisome membrane. Note=Associated with peroxisomal membranes; anchored by PEX26 to peroxisome membranes

Background

This gene encodes a member of the AAA ATPase family, a large group of ATPases associated with diverse cellular activities. This protein is cytoplasmic but is often anchored to a peroxisomal membrane where it forms a heteromeric complex and plays a role in the import of proteins into peroxisomes and peroxisome biogenesis. Mutations in this gene have been associated with complementation group 1 peroxisomal disorders such as neonatal adrenoleukodystrophy, infantile Refsum disease, and Zellweger syndrome.

References

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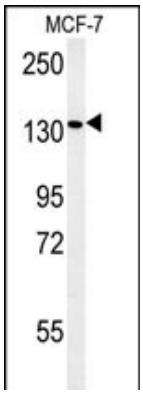
Yik, W.Y., et al. Hum. Mutat. 30 (3), E467-E480 (2009) :
Gudbjartsson, D.F., et al. Nat. Genet. 40(5):609-615(2008)
Matsuoka, S., et al. Science 316(5828):1160-1166(2007)
Tamura, S., et al. J. Biol. Chem. 281(38):27693-27704(2006)

Images



PEX1 Antibody (Center) (Cat. #AP10181c) western blot analysis in MCF-7 cell line lysates (35ug/lane).This demonstrates the PEX1 antibody detected the PEX1 protein (arrow).