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PEX12 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9604c

Product Information

Application	WB, E
Primary Accession	O00623
Other Accession	Q8VC48, A4FUD4
Reactivity	Human
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22647
Calculated MW	40797
Antigen Region	131-158

Additional Information

Gene ID	5193
Other Names	Peroxisome assembly protein 12, Peroxin-12, Peroxisome assembly factor 3, PAF-3, PEX12, PAF3
Target/Specificity	This PEX12 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 131-158 amino acids from the Central region of human PEX12.
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	PEX12 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PEX12 {ECO:0000303|PubMed:9090384, ECO:0000312|HGNC:HGNC:8854}
Function	Component of a retrotranslocation channel required for peroxisome organization by mediating export of the PEX5 receptor from peroxisomes to

	the cytosol, thereby promoting PEX5 recycling (PubMed:24662292, PubMed:9354782, PubMed:9632816). The retrotranslocation channel is composed of PEX2, PEX10 and PEX12; each subunit contributing transmembrane segments that coassemble into an open channel that specifically allows the passage of PEX5 through the peroxisomal membrane (By similarity). PEX12 also regulates PEX5 recycling by activating the E3 ubiquitin-protein ligase activity of PEX10 (PubMed:24662292). When PEX5 recycling is compromised, PEX12 stimulates PEX10-mediated polyubiquitination of PEX5, leading to its subsequent degradation (By similarity).
Cellular Location	Peroxisome membrane; Multi-pass membrane protein

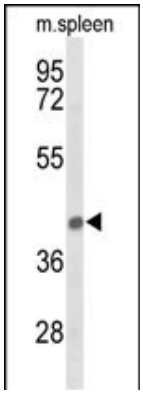
Background

Peroxins (PEXs) are proteins that are essential for the assembly of functional peroxisomes. The peroxisome biogenesis disorders (PBDs) are a group of genetically heterogeneous autosomal recessive, lethal diseases characterized by multiple defects in peroxisome function. The peroxisomal biogenesis disorders are a heterogeneous group with at least 14 complementation groups and with more than 1 phenotype being observed in cases falling into particular complementation groups. Although the clinical features of PBD patients vary, cells from all PBD patients exhibit a defect in the import of one or more classes of peroxisomal matrix proteins into the organelle.

References

Zeharia, A., et al. J. Hum. Genet. 52(7):599-606(2007)
Mano, S., et al. Plant J. 47(4):604-618(2006)
Gootjes, J., et al. Hum. Mutat. 24(2):130-139(2004)

Images



Western blot analysis of PEX12 Antibody (Center) (Cat. #AP9604c) in mouse spleen tissue lysates (35ug/lane). PEX12 (arrow) was detected using the purified Pab.