10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Peroxin 5 Polyclonal Antibody

Catalog # AP71860

Product Information

Application	WB, IHC-P
Primary Accession	P50542
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70865

Additional Information

Gene ID	5830
Other Names	PEX5; PXR1; Peroxisomal targeting signal 1 receptor; PTS1 receptor; PTS1R; PTS1-BP; Peroxin-5; Peroxisomal C-terminal targeting signal import receptor; Peroxisome receptor 1
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications. IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

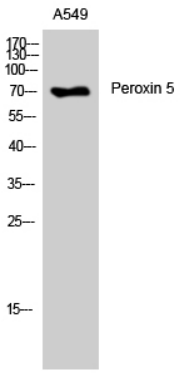
Name	PEX5 {ECO:0000303|PubMed:10562279, ECO:0000312|HGNC:HGNC:9719}
Function	Receptor that mediates peroxisomal import of proteins containing a C-terminal PTS1-type tripeptide peroxisomal targeting signal (SKL-type) (PubMed:11101887, PubMed:11336669, PubMed:12456682, PubMed:16314507, PubMed:17157249, PubMed:17428317, PubMed:21976670, PubMed:26344566, PubMed:7706321, PubMed:7719337, PubMed:7790377). Binds to cargo proteins containing a PTS1 peroxisomal targeting signal in the cytosol, and translocates them into the peroxisome matrix by passing through the PEX13-PEX14 docking complex along with cargo proteins (PubMed:12456682, PubMed:17157249, PubMed:21976670, PubMed:26344566). PEX5 receptor is then retrotranslocated into the cytosol, leading to release of bound cargo in the peroxisome matrix, and reset for a subsequent peroxisome import cycle (PubMed:11336669, PubMed:24662292).
Cellular Location	Cytoplasm, cytosol. Peroxisome matrix. Note=Cycles between the cytosol and the peroxisome matrix (PubMed:11336669, PubMed:16314507). Following binding to cargo proteins containing a PTS1 peroxisomal targeting signal in

	the cytosol, recruited to the docking complex, composed of PEX13 and PEX14, leading to translocation into the peroxisome matrix along with cargo proteins (By similarity). Export and recycling to the cytosol is initiated by binding to the PEX2-PEX10- PEX12 ligase complex via its unstructured N-terminus that inserts into the ligase pore and emerges in the cytosol (By similarity). Cys-11 of PEX5 is then monoubiquitinated, promoting its extraction from peroxisomal membrane by the PEX1-PEX6 AAA ATPase complex (PubMed:16314507, PubMed:19208625, PubMed:24118911, PubMed:29884772) Extraction is accompanied by unfolding of the TPR repeats and release of bound cargo in the peroxisome matrix (By similarity). The TPR repeats refold in the cytosol and ubiquitination is removed by deubiquitinating enzymes, resetting PEX5 for a subsequent import cycle (By similarity). {ECO:0000250|UniProtKB:A0A1L8FDW4, ECO:0000269|PubMed:11336669, ECO:0000269|PubMed:16314507, ECO:0000269|PubMed:19208625, ECO:0000269|PubMed:24118911, ECO:0000269|PubMed:29884772}
Tissue Location	Detected in heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.

Background

Binds to the C-terminal PTS1-type tripeptide peroxisomal targeting signal (SKL-type) and plays an essential role in peroxisomal protein import.

Images



Western Blot analysis of A549 cells using Peroxin 5 Polyclonal Antibody

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.