

Technical Data Sheet

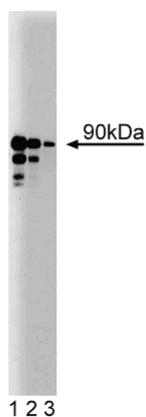
Purified Mouse Anti-Mouse PEX5

Product Information

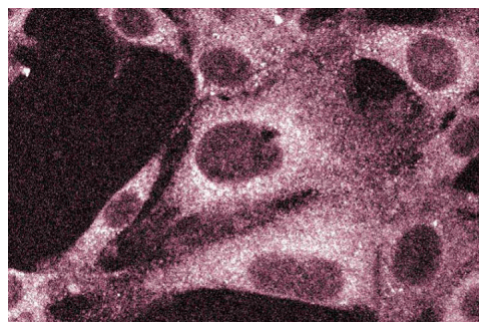
Material Number:	611594
Size:	50 µg
Concentration:	250 µg/ml
Clone:	50/PEX5
Immunogen:	Mouse PEX5 aa. 246-361
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Mouse
Target MW:	90 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Pex genes encode proteins called peroxins that are involved in protein transport from the cytoplasm to peroxisomes. Import of peroxisomal matrix proteins depends on two peroxisomal targeting signals, PTS1 and PTS2. PTS1 is a C-terminal tripeptide of Ser-Lys-Leu and PTS2 is a cleavable N-terminal signal. Two peroxin receptors, PEX5 and PEX7, specifically bind peroxisomal matrix proteins that contain the PTS1 and PTS2 signal, respectively. Both receptors have repetitive motifs that belong to structural families. PEX5 contains seven tetratricopeptide repeats (TPR), while PEX7 has six WD motifs. PEX5 is bound by the SH3 domain of the membrane-bound peroxin PEX13. This may facilitate docking of PEX5-peroxisome protein complexes to the peroxisomal membrane. In addition, PEX12 and PEX14 bind PEX5 and may act downstream of the docking process to promote protein import. After PEX5-mediated import of the peroxisomal matrix protein, PEX4 recycles PEX5 from the peroxisome to the cytoplasm. The ubiquitous expression of PEX5 indicates that PEX5-mediated import of PTS1-containing proteins is commonly used by a variety of cell types.



Western blot analysis of PEX5 on a RSV-3T3 cell lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-mouse PEX5 antibody.



Immunofluorescence staining of NIH/3T3 cells (Mouse embryo fibroblast cells; ATCC CRL-1658).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharminingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Baes M, Gressens P, Baumgart E. A mouse model for Zellweger syndrome. *Nat Genet.* 1997; 17(1):49-57.(Biology)
Chang CC, Warren DS, Sacksteder KA, Gould SJ. PEX12 interacts with PEX5 and PEX10 and acts downstream of receptor docking in peroxisomal matrix protein import. *J Cell Biol.* 1999; 147(4):761-774.(Biology)
Schliebs W, Saidowsky J, Agianian B, Dodt G, Herberg FW, Kunau WH. Recombinant human peroxisomal targeting signal receptor PEX5. Structural basis for interaction of PEX5 with PEX14. *J Biol Chem.* 1999; 274(9):5666-5673.(Biology)