

PEX5L Antibody / PEX5-related protein Antibody (FY13540)

Catalog No.	Formulation	Size
FY13540	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q8IYB4
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This PEX5L Antibody / PEX5-related protein Antibody is intended for research use only.

PEX5L Antibody by IF in human testis. Immunofluorescence staining of paraffin-embedded human testis using PEX5-related protein Antibody reveals red signal within the seminiferous epithelium, with blue DAPI nuclear counterstaining. Fluorescence is distributed among cells lining the tubules, providing spatial information on PEX5L-associated immunoreactivity. Sections underwent EDTA antigen retrieval at pH 8.0 and blocking with 10% goat serum. Primary antibody was incubated at 5 ug/mL overnight at 4°C, followed by Cy3-conjugated secondary antibody at 1:500 for 30 minutes at 37°C.

PEX5L Antibody by IF in mouse brain. Immunofluorescence analysis of paraffin-embedded mouse brain using PEX5-related protein Antibody demonstrates red cellular staining with blue DAPI-stained nuclei. Signal is distributed among cells in the brain section without establishing a particular neuronal or glial cell identity. Heat-mediated antigen retrieval was performed in EDTA buffer at pH 8.0, followed by 10% goat serum blocking. Sections were incubated with primary antibody at 5 ug/mL overnight at 4°C and developed with Cy3-conjugated secondary antibody at 1:500. The image illustrates PEX5L-associated immunoreactivity in mouse brain.

PEX5L Antibody by WB in human and rodent samples. Western blot analysis using PEX5-related protein Antibody detects a principal band near 60-65 kDa in THP-1 (lane 1), Jurkat (lane 2), SH-SY5Y (lane 3), U251 (lane 4), rat brain (lane 5), rat testis (lane 6), mouse brain (lane 7), and mouse testis (lane 8). This migration is consistent with the reported approximately 65 kDa molecular weight of PEX5L. Reduced lysates containing 30 ug protein per lane were separated by 10% SDS-PAGE and transferred to nitrocellulose. Primary antibody was applied at 0.5 ug/mL overnight at 4oC and detected by HRP-linked secondary antibody and chemiluminescence.

PEX5L Antibody by IHC in rat brain. Immunohistochemistry of paraffin-embedded rat brain using PEX5-related protein Antibody reveals brown staining in scattered cells and cellular processes against hematoxylin-counterstained nuclei. Sections underwent EDTA-based heat-mediated antigen retrieval at pH 8.0, followed by 10% goat serum blocking. Primary antibody was incubated at 2 ug/mL overnight at 4oC and visualized with a peroxidase-linked secondary reagent and DAB chromogen. The staining demonstrates PEX5L-associated immunoreactivity within rat brain tissue.

PEX5L Antibody by IHC in human testis. Immunohistochemistry of paraffin-embedded human testis using PEX5-related protein Antibody demonstrates brown staining among cells of the seminiferous tubules, with blue hematoxylin counterstaining. Immunoreactivity is distributed along the seminiferous epithelium. Tissue underwent heat-mediated EDTA antigen retrieval at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 4oC and detected with a peroxidase-conjugated secondary antibody and DAB. The figure provides histological evidence of PEX5L-associated staining in human testis.

PEX5L Antibody by IHC in human thyroid carcinoma. Immunohistochemistry of paraffin-embedded human thyroid carcinoma using PEX5-related protein Antibody reveals brown immunoreactivity in epithelial tumor structures, with blue hematoxylin-stained nuclei. Staining is evident in cells lining irregular gland-like spaces within the section. Heat-mediated antigen retrieval was performed in EDTA buffer at pH 8.0, followed by blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 4oC, with peroxidase-linked secondary detection and DAB chromogen. The image illustrates PEX5L-associated immunoreactivity in human thyroid carcinoma.

PEX5L Antibody by IHC in mouse brain. Immunohistochemistry of paraffin-embedded mouse brain using PEX5-related protein Antibody demonstrates brown staining in cells dispersed throughout the brain section, with hematoxylin counterstaining of nuclei. The image does not independently establish the identities of the stained cell populations. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0, followed by blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 4oC and detected with peroxidase-linked secondary antibody and DAB. This preparation documents PEX5L-associated staining in mouse brain.

PEX5L Antibody by FACS in U251 cells. Flow cytometric analysis using PEX5-related protein Antibody shows a rightward fluorescence shift in stained U251 cells (blue histogram) compared with the rabbit IgG isotype control (green) and unstained control (red). Cells were fixed in 4% paraformaldehyde, permeabilized for intracellular staining, and blocked with 10% goat serum. Primary antibody was incubated at 1 ug per 1×10^6 cells for 30 minutes at 20oC, followed by DyLight 488-conjugated secondary antibody. The histogram demonstrates antibody-associated fluorescence under the specified staining conditions.

Description

PEX5L Antibody / PEX5-related protein Antibody detects PEX5L, also known as TRIP8b, a protein involved in the regulation of hyperpolarization-activated cyclic nucleotide-gated channels. Despite its name and sequence relationship to the peroxisomal import receptor PEX5, PEX5L is best characterized for its interactions with HCN channels in neurons. HCN channels contribute to the inward current activated by membrane hyperpolarization and influence rhythmic activity, resting membrane properties, and neuronal responsiveness. PEX5L acts as an auxiliary regulatory protein that helps determine how these channels behave and where they are located.

Alternative splicing generates multiple PEX5L isoforms with different effects on HCN channel trafficking and surface expression. TRIP8b can bind channel regions involved in cyclic nucleotide regulation and can alter channel gating as well as localization. These actions are especially relevant to the distribution of HCN channels within neuronal dendrites, where channel placement shapes the integration of synaptic inputs. The consequences of PEX5L interaction depend on the particular isoform, channel subtype, and cellular environment. Thus, the protein is not adequately described by a single universal effect on channel abundance. The PEX5-related protein Antibody designation identifies this molecular target by its descriptive protein name.

PEX5L has attracted interest in neuronal excitability and the regulation of circuit function. Changes in HCN channel localization or cyclic nucleotide sensitivity can influence how neurons respond to incoming signals. PEX5L provides a link between channel molecular architecture and the spatial organization of electrical properties. NSJ Bioreagents offers the PEX5L Antibody for this channel-associated regulatory protein. A PEX5L Antibody relates to the biology of TRIP8b, HCN channel trafficking, and the control of neuronal membrane excitability.

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Application Notes

Working dilutions of the PEX5L Antibody / PEX5-related protein Antibody may require optimization according to the experimental protocol.

Immunogen

The PEX5L Antibody was generated using a synthetic peptide corresponding to a sequence in the middle region of human PEX5L.

Storage

After reconstitution, the PEX5L Antibody may be stored at 4°C for up to one month. For longer storage, aliquot and freeze at -20°C for up to six months. Avoid repeated freezing and thawing.

Alternate Names

PEX5L antibody, PEX5-related protein antibody, peroxisomal biogenesis factor 5 like antibody, PEX5R antibody, PXR2 antibody, PEX2-related protein antibody, PEX5-like protein antibody, Peroxin-5-related protein antibody, Peroxisome biogenesis factor 5-like antibody, Tetratricopeptide repeat-containing Rab8b-interacting protein antibody, Pex5Rp antibody, TRIP8b antibody

