

Peroxin 5R (A-4): sc-398580

BACKGROUND

Peroxisomes are single-membrane bound organelles present in virtually all eukaryotic cells. They are involved in numerous catabolic and anabolic pathways, including β -oxidation of very long chain fatty acids, metabolism of hydrogen peroxide, plasmalogen biosynthesis and bile acid synthesis. The Peroxin gene family, which includes more than 20 members, is required for peroxisome biogenesis. Peroxin 5R, also known as PEX5-related protein or peroxisome biogenesis factor 5-like, is a 626 amino acid protein that is mainly expressed in brain, with some expression in testis and pancreas. Peroxin 5R contains five TPR repeats, which enable protein-protein interactions and assembly of large multiprotein complexes. There are three isoforms of Peroxin 5R that are produced as a result of alternative splicing events. These isoforms bind C-terminal peroxisome-targeting signals in a similar manner to Peroxin-5. Peroxin 5R interacts with Rab 8B, possibly playing a role in vesicular trafficking and neurotransmitter release.

REFERENCES

- Fujiki, Y. 2000. Peroxisome biogenesis and peroxisome biogenesis disorders. *FEBS Lett.* 476: 42-46.
- Otera, H., et al. 2000. The mammalian peroxin Pex5pL, the longer isoform of the mobile peroxisome targeting signal (PTS) type 1 transporter, translocates the Pex7p.PTS2 protein complex into peroxisomes via its initial docking site, Pex14p. *J. Biol. Chem.* 275: 21703-21714.

CHROMOSOMAL LOCATION

Genetic locus: PEX5L (human) mapping to 3q26.33; Pex5l (mouse) mapping to 3 A3.

SOURCE

Peroxin 5R (A-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 161-176 within an internal region of Peroxin 5R of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Peroxin 5R (A-4) is available conjugated to agarose (sc-398580 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398580 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398580 PE), fluorescein (sc-398580 FITC), Alexa Fluor[®] 488 (sc-398580 AF488), Alexa Fluor[®] 546 (sc-398580 AF546), Alexa Fluor[®] 594 (sc-398580 AF594) or Alexa Fluor[®] 647 (sc-398580 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398580 AF680) or Alexa Fluor[®] 790 (sc-398580 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398580 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Peroxin 5R (A-4) is recommended for detection of Peroxin 5R of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Peroxin 5R siRNA (h): sc-77918, Peroxin 5R siRNA (m): sc-152175, Peroxin 5R shRNA Plasmid (h): sc-77918-SH, Peroxin 5R shRNA Plasmid (m): sc-152175-SH, Peroxin 5R shRNA (h) Lentiviral Particles: sc-77918-V and Peroxin 5R shRNA (m) Lentiviral Particles: sc-152175-V.

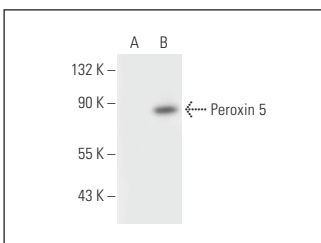
Molecular Weight of Peroxin 5R: 70 kDa.

Positive Controls: Peroxin 5 (h): 293 Lysate: sc-111159.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



Peroxin 5R (A-4): sc-398580. Western blot analysis of Peroxin 5 expression in non-transfected: sc-110760 (A) and human Peroxin 5 transfected: sc-111159 (B) 293 whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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