

Peroxin 1 (C-14): sc-21957

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 1 is required for stability of Pex5 and protein import into the peroxisome matrix. Peroxin 1 is anchored by Pex26 to peroxisome membranes, to form heteromeric AAA ATPase complexes required for the import of proteins into peroxisomes.

REFERENCES

- Gartner, J. 2000. Organelle disease: peroxisomal disorders. *Eur. J. Pediatr.* 159: S236-S239.
- Collins, C.S., et al. 2000. The peroxisome biogenesis factors Pex4p, Pex22p, Pex1p and Pex6p act in the terminal steps of peroxisomal matrix protein import. *Mol. Cell. Biol.* 20: 7516-7526.

CHROMOSOMAL LOCATION

Genetic locus: PEX1 (human) mapping to 7q21.2; Pex1 (mouse) mapping to 5A1.

SOURCE

Peroxin 1 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Peroxin 1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-21957 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Peroxin 1 (C-14) is recommended for detection of Peroxin 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Peroxin 1 (C-14) is also recommended for detection of Peroxin 1 in additional species, including equine and bovine.

Suitable for use as control antibody for Peroxin 1 siRNA (h): sc-44927, Peroxin 1 siRNA (m): sc-44928, Peroxin 1 shRNA Plasmid (h): sc-44927-SH, Peroxin 1 shRNA Plasmid (m): sc-44928-SH, Peroxin 1 shRNA (h) Lentiviral Particles: sc-44927-V and Peroxin 1 shRNA (m) Lentiviral Particles: sc-44928-V.

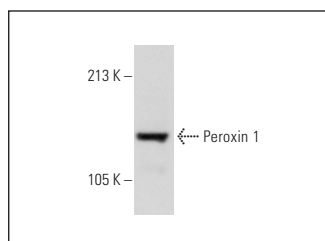
Molecular Weight of Peroxin 1: 143 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or MCF7 whole cell lysate: sc-2206.

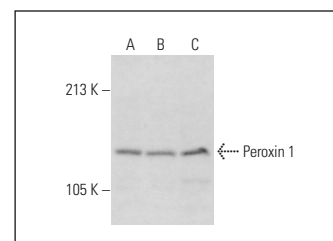
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Peroxin 1 (C-14): sc-21957. Western blot analysis of Peroxin 1 expression in U-251-MG whole cell lysate.



Peroxin 1 (C-14): sc-21957. Western blot analysis of Peroxin 1 expression in MCF7 (A), HeLa (B) and Jurkat (C) 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.

RESEARCH USE

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

PROTOCOLS

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



Try Peroxin 1 (D-9): sc-393174, our highly recommended monoclonal alternative to Peroxin 1 (C-14).