

# Peroxin 19 (C-19): sc-18791

## BACKGROUND

The covalent attachment of prenyl lipids, such as farnesyl or geranylgeranyl groups, by specific transferases is indispensable for the cellular sorting of many proteins. A farnesylated protein, Peroxin 19 (peroxisomal farnesylated protein, PxF or HK33), localizes to the outer surface of peroxisomes. Specifically, Peroxin 19 localizes to the cytoplasmic surface of peroxisomes in liver cells. Peroxin 19 is the human homolog of Pex19p, an oleic acid-inducible, farnesylated protein that is essential for peroxisome biogenesis in *Saccharomyces cerevisiae*. The carboxy-terminal part of Peroxin 19, including the CAAX homology box, is required for its biologic function. Moreover, Peroxin 19 is apparently involved in the initial stage of peroxisome membrane assembly, before the import of matrix protein. The gene which encodes Peroxin 19 is a housekeeping gene and maps to human chromosome 1q23.2. This is the causative gene for complementation group J peroxisome biogenesis disorder.

## REFERENCES

- James, G.L., et al. 1994. PxF, a prenylated protein of peroxisomes. *J. Biol. Chem.* 269: 14182-14190.
- Kammerer, S., et al. 1997. Genomic organization and molecular characterization of a gene encoding HsPXF, a human peroxisomal farnesylated protein. *Genomics* 45: 200-210.
- Gotte, K., et al. 1998. Pex19p, a farnesylated protein essential for peroxisome biogenesis. *Mol. Cell. Biol.* 18: 616-628.
- Kinoshita, N., et al. 1998. Newly identified Chinese hamster ovary cell mutants are defective in biogenesis of peroxisomal membrane vesicles (peroxisomal ghosts), representing a novel complementation group in mammals. *J. Biol. Chem.* 273: 24122-24130.
- Matsuzono, Y., et al. 1999. Human PEX19: cDNA cloning by functional complementation, mutation analysis in a patient with Zellweger syndrome, and potential role in peroxisomal membrane assembly. *Proc. Natl. Acad. Sci. USA* 96: 2116-2121.

## CHROMOSOMAL LOCATION

Genetic locus: PEX19 (human) mapping to 1q23.2; Pex19 (mouse) mapping to 1 H3.

## SOURCE

Peroxin 19 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Peroxin 19 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-18791 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Peroxin 19 (C-19) is recommended for detection of Peroxin 19 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 19 (C-19) is also recommended for detection of Peroxin 19 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Peroxin 19 siRNA (h): sc-44925, Peroxin 19 siRNA (m): sc-44926, Peroxin 19 shRNA Plasmid (h): sc-44925-SH, Peroxin 19 shRNA Plasmid (m): sc-44926-SH, Peroxin 19 shRNA (h) Lentiviral Particles: sc-44925-V and Peroxin 19 shRNA (m) Lentiviral Particles: sc-44926-V.

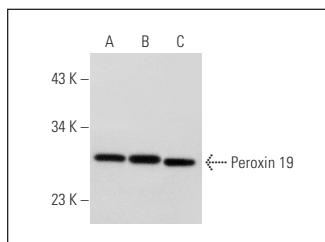
Molecular Weight of Peroxin 19: 33 kDa.

Positive Controls: SW-13 cell lysate: sc-24778, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

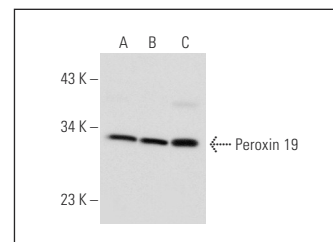
## RECOMMENDED SECONDARY REAGENTS

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 19 (C-19): sc-18791. Western blot analysis of Peroxin 19 expression in K-562 (A), Y79 (B) and HeLa (C) whole cell lysates.



Peroxin 19 (C-19): sc-18791. Western blot analysis of Peroxin 19 expression in HEK293 (A), NIH/3T3 (B) and SW-13 (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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.