

# Peroxin 11 $\alpha$ (N-15): sc-104603

## BACKGROUND

Peroxisomes are single-membrane bound organelles present in virtually all eukaryotic cells. They are involved in numerous catabolic and anabolic pathways, including  $\beta$ -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 11 $\alpha$  (peroxisomal biogenesis factor 11  $\alpha$ ), also known as peroxisomal membrane protein 11A, PEX11A, PEX11- $\alpha$ , MGC119947, MGC138534, Pex11 $\alpha$ , HsPEX11p or PMP28, is a 247 amino acid multi-pass membrane protein that localizes to the peroxisome membrane and belongs to the Peroxin11 family. Peroxin 11 $\alpha$  is known to promote peroxisome proliferation, mediate peroxisome division and regulate coatomer protein binding to the peroxisomal membrane. Peroxin 11 $\alpha$  is highly expressed in kidney and the gene encoding Peroxin 11 $\alpha$  maps to human chromosome 15q26.1.

## REFERENCES

1. Abe, I., et al. 1998. Clofibrate-inducible, 28 kDa peroxisomal integral membrane protein is encoded by PEX11. *FEBS Lett.* 431: 468-472.
2. Schrader, M., et al. 1998. Expression of PEX11 $\beta$  mediates peroxisome proliferation in the absence of extracellular stimuli. *J. Biol. Chem.* 273: 29607-29614.
3. Li, X., et al. 2002. PEX11 $\alpha$  is required for peroxisome proliferation in response to 4-phenylbutyrate but is dispensable for peroxisome proliferator-activated receptor  $\alpha$ -mediated peroxisome proliferation. *Mol. Cell. Biol.* 22: 8226-8240.
4. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 603866. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Shimizu, M., et al. 2006. Peroxisome proliferator-activated receptor subtypes differentially cooperate with other transcription factors in selective transactivation of the Perilipin/PEX11  $\alpha$  gene pair. *J. Biochem.* 139: 563-573.

## CHROMOSOMAL LOCATION

Genetic locus: PEX11A (human) mapping to 15q26.1.

## SOURCE

Peroxin 11 $\alpha$  (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of Peroxin 11 $\alpha$  of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-104603 P, (100  $\mu$ g 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 11 $\alpha$  (N-15) is recommended for detection of Peroxin 11 $\alpha$  of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 11 $\alpha$  (N-15) is also recommended for detection of Peroxin 11 $\alpha$  in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Peroxin 11 $\alpha$  siRNA (h): sc-89978, Peroxin 11 $\alpha$  shRNA Plasmid (h): sc-89978-SH and Peroxin 11 $\alpha$  shRNA (h) Lentiviral Particles: sc-89978-V.

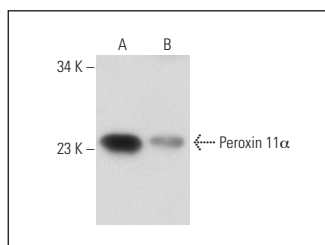
Molecular Weight of Peroxin 11 $\alpha$ : 28 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



Peroxin 11 $\alpha$  (N-15): sc-104603. Western blot analysis of Peroxin 11 $\alpha$  expression in KNRK (A) and NTERA-2 cl.D1 (B) whole cell lysates.

## STORAGE

Store at 4 $^{\circ}$  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.