

# Peroxin 26 (C-7): sc-376589

## 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 26, also known as PEX26 (peroxisome assembly protein 26) is a widely expressed protein that functions to recruit, shuttle and anchor Peroxin 1 and Peroxin 6 to the peroxisome membrane, thus allowing the formation of heteromeric AAA ATPase complexes. Once formed, the ATPase complexes are able to import various proteins, such as catalase, into peroxisomes. Proper import of these peroxisomal proteins is essential for normal development. Defects in the gene encoding Peroxin 26 are the cause of multiple peroxisome-related disorders, including Zellweger syndrome (ZWS), infantile Refsum disease (IRD) and peroxisome biogenesis disorder complementation group 8 (PBD-CG8).

## REFERENCES

1. Matsumoto, N., et al. 2003. The pathogenic peroxin Pex26p recruits the Pex1p-Pex6p AAA ATPase complexes to peroxisomes. *Nat. Cell Biol.* 5: 454-460.
2. Matsumoto, N., et al. 2003. Mutations in novel peroxin gene PEX26 that cause peroxisome-biogenesis disorders of complementation group 8 provide a genotype-phenotype correlation. *Am. J. Hum. Genet.* 73: 233-246.
3. Steinberg, S., et al. 2004. The PEX Gene Screen: molecular diagnosis of peroxisome biogenesis disorders in the Zellweger syndrome spectrum. *Mol. Genet. Metab.* 83: 252-263.
4. Miyata, N., et al. 2005. Shuttling mechanism of peroxisome targeting signal type 1 receptor Pex5: ATP-independent import and ATP-dependent export. *Mol. Cell. Biol.* 25: 10822-10832.
5. Weller, S., et al. 2005. Alternative splicing suggests extended function of PEX26 in peroxisome biogenesis. *Am. J. Hum. Genet.* 76: 987-1007.

## CHROMOSOMAL LOCATION

Genetic locus: PEX26 (human) mapping to 22q11.21; Pex26 (mouse) mapping to 6 F1.

## SOURCE

Peroxin 26 (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-27 at the N-terminus of Peroxin 26 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376589 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Peroxin 26 (C-7) is recommended for detection of Peroxin 26 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Peroxin 26 siRNA (h): sc-62773, Peroxin 26 siRNA (m): sc-62774, Peroxin 26 shRNA Plasmid (h): sc-62773-SH, Peroxin 26 shRNA Plasmid (m): sc-62774-SH, Peroxin 26 shRNA (h) Lentiviral Particles: sc-62773-V and Peroxin 26 shRNA (m) Lentiviral Particles: sc-62774-V.

Molecular Weight (predicted) of Peroxin 26: 34 kDa.

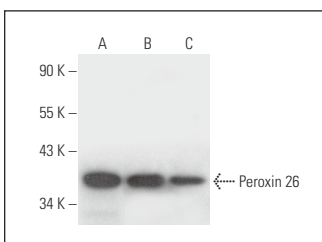
Molecular Weight (observed) of Peroxin 26: 34-43 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or HuT 78 whole cell lysate: sc-2208.

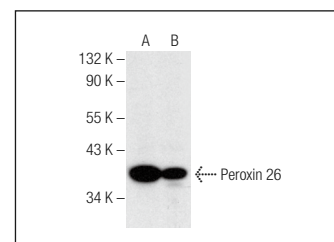
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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 26 (C-7): sc-376589. Western blot analysis of Peroxin 26 expression in HeLa (A) and A-431 (B) whole cell lysates and human kidney tissue extract (C).



Peroxin 26 (C-7): sc-376589. Western blot analysis of Peroxin 26 expression in Jurkat (A) and HuT 78 (B) 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.