SANTA CRUZ BIOTECHNOLOGY, INC.

Peroxin 2 (N-20): sc-34503

BACKGROUND

Peroxisomes 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. Peroxins are proteins involved in peroxisome biogenesis The peroxisome biogenesis factor Peroxin 2 (also designated Pex2) is an integral membrane protein of peroxisomes. Defects in the PXMP3 gene encoding Peroxin 2 are the cause of Zellweger syndrome-1 (ZWS-1), an autosomal recessive disorder due to defective import mechanisms for peroxisomal matrix enzymes. ZWS-1 is a severe form of the peroxisome-biogenesis disorders, a group of genetically heterogeneous, lethal diseases that are characterized by neuronal, hepatic and renal abnormalities, mental retardation and, in their most severe form, death within the first year of life.

REFERENCES

1. Shimozawa, N., et al. 1992. A human gene responsible for Zellweger syndrome that affects peroxisome assembly. Science 255: 1132-1134.
2. Erdmann, R., et al. 1995. Giant peroxisomes in oleic acid-induced *Saccharomyces cerevisiae* lacking the peroxisomal membrane protein Pmp27p. J. Cell Biol. 128: 509-523.
3. Marshall, P.A., et al. 1995. Pmp27 promotes peroxisomal proliferation. J. Cell Biol. 129: 345-355.
4. Harano, T., et al. 1999. Transmembrane topology of the peroxin, Pex2p, an essential component for the peroxisome assembly. J. Biochem. 125: 1168-1174.
5. Biermanns, M., et al. 2000. Genomic organization and characterization of human PEX2 encoding a 35 kDa peroxisomal membrane protein. Biochem. Biophys. Res. Commun. 273: 985-990.

CHROMOSOMAL LOCATION

Genetic locus: PEX2 (human) mapping to 8q21.11; Pxmp3 (mouse) mapping to 3 A1.

SOURCE

Peroxin 2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Peroxin 2 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-34503 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Peroxin 2 (N-20) is recommended for detection of Peroxin 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 2 (N-20) is also recommended for detection of Peroxin 2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Peroxin 2 siRNA (h): sc-44929, Peroxin 2 siRNA (m): sc-44930, Peroxin 2 shRNA Plasmid (h): sc-44929-SH, Peroxin 2 shRNA Plasmid (m): sc-44930-SH, Peroxin 2 shRNA (h) Lentiviral Particles: sc-44929-V and Peroxin 2 shRNA (m) Lentiviral Particles: sc-44930-V.

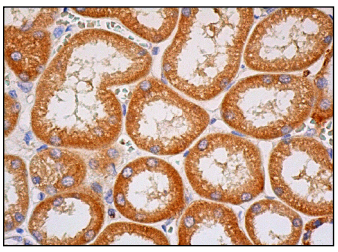
Molecular Weight of Peroxin 2: 38 kDa.

Positive Controls: T24 cell lysate: sc-2292.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Peroxin 2 (N-20): sc-34503. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

PROTOCOLS

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