SANTA CRUZ BIOTECHNOLOGY, INC.

Peroxin 6 (F-6): sc-271813

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. One such member of the Peroxin gene family is Peroxin 6. Of 11 mutations identified in the gene PEX6, most lead to premature termination or large deletions of the Peroxin 6 protein and result in the most severe peroxisome biogenesis disorder phenotype of Zellweger syndrome, a disorder associated with major deformations.

CHROMOSOMAL LOCATION

Genetic locus: PEX6 (human) mapping to 6p21.1; Pex6 (mouse) mapping to 17 C.

SOURCE

Peroxin 6 (F-6) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Peroxin 6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Peroxin 6 (F-6) is available conjugated to agarose (sc-271813 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271813 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271813 PE), fluorescein (sc-271813 FITC), Alexa Fluor® 488 (sc-271813 AF488), Alexa Fluor® 546 (sc-271813 AF546), Alexa Fluor® 594 (sc-271813 AF594) or Alexa Fluor® 647 (sc-271813 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271813 AF680) or Alexa Fluor® 790 (sc-271813 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

Peroxin 6 (F-6) is recommended for detection of Peroxin 6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Peroxin 6 siRNA (h): sc-62775, Peroxin 6 siRNA (m): sc-62776, Peroxin 6 shRNA Plasmid (h): sc-62775-SH, Peroxin 6 shRNA Plasmid (m): sc-62776-SH, Peroxin 6 shRNA (h) Lentiviral Particles: sc-62775-V and Peroxin 6 shRNA (m) Lentiviral Particles: sc-62776-V.

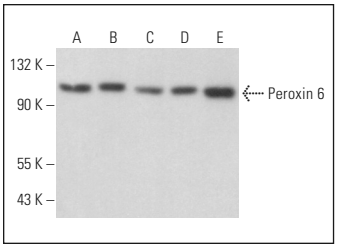
Molecular Weight of Peroxin 6: 116 kDa.

Positive Controls: Peroxin 6 (h): 293T Lysate: sc-115993, PC-12 cell lysate: sc-2250 or K-562 whole cell lysate: sc-2203.

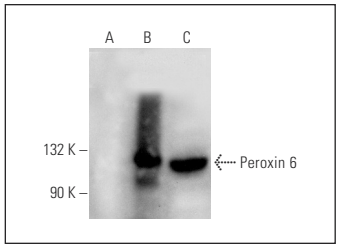
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 6 (F-6): sc-271813. Western blot analysis of Peroxin 6 expression in K-562 (**A**), A-431 (**B**), NIH/3T3 (**C**), 3T3-L1 (**D**) and PC-12 (**E**) whole cell lysates.



Peroxin 6 (F-6): sc-271813. Western blot analysis of Peroxin 6 expression in non-transfected 293T: sc-117752 (**A**), human Peroxin 6 transfected 293T: sc-115993 (**B**) and K-562 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Iershov, A., et al. 2019. The class 3 PI3K coordinates autophagy and mitochondrial lipid catabolism by controlling nuclear receptor PPARα. Nat. Commun. 10: 1566.
2. Aleksic, M., et al. 2021. Hypothyroidism intensifies both canonic and the *de novo* pathway of peroxisomal biogenesis in rat brown adipocytes in a time-dependent manner. Cells 10: 2248.

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 for detailed protocols and support products.