SANTA CRUZ BIOTECHNOLOGY, INC.

Peroxin 1 (h): 293T Lysate: sc-115238

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Peroxin 1 is required for stability of Pex5 and protein import into the peroxisome matrix. Peroxin 1 is anchored by Pex26 to peroxisome membranes, to form heteromeric AAA ATPase complexes required for the import of proteins into peroxisomes.

REFERENCES

1. Gartner, J. 2000. Organelle disease: peroxisomal disorders. Eur. J. Pediatr. 159: S236-S239.
2. Collins, C.S., et al. 2000. The peroxisome biogenesis factors Pex4p, Pex22p, Pex1p and Pex6p act in the terminal steps of peroxisomal matrix protein import. Mol. Cell. Biol. 20: 7516-7526.
3. Fujiki, Y. 2000. Peroxisome biogenesis and peroxisome biogenesis disorders. FEBS Lett. 476: 42-46.
4. Brosius, U. and Gartner, J. 2002. Cellular and molecular aspects of Zellweger syndrome and other peroxisome biogenesis disorders. Cell. Mol. Life Sci. 59: 1058-1069.
5. Honsho, M., et al. 2002. The membrane biogenesis peroxin Pex16p. Topogenesis and functional roles in peroxisomal membrane assembly. J. Biol. Chem. 277: 44513-44524.
6. Matsumoto, N., et al. 2003. The pathogenic peroxin Pex26p recruits the Pex1p-Pex6p AAA ATPase complexes to peroxisomes. Nat. Cell Biol. 5: 454-460.
7. Costa-Rodrigues, J., et al. 2004. The N-terminus of the peroxisomal cycling receptor, Pex5p, is required for redirecting the peroxisome-associated peroxin back to the cytosol. J. Biol. Chem. 279: 46573-46579.

CHROMOSOMAL LOCATION

Genetic locus: PEX1 (human) mapping to 7q21.2.

PRODUCT

Peroxin 1 (h): 293T Lysate represents a lysate of human Peroxin 1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Peroxin 1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Peroxin 1 antibodies. Recommended use: 10-20 µl per lane.

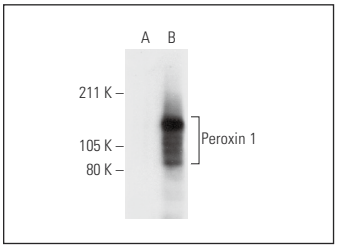
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Peroxin 1 (D-9): sc-393174 is recommended as a positive control antibody for Western Blot analysis of enhanced human Peroxin 1 expression in Peroxin 1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



Peroxin 1 (D-9): sc-393174. Western blot analysis of Peroxin 1 expression in non-transfected: sc-117752 (**A**) and human Peroxin 1 transfected: sc-115238 (**B**) 293T whole cell lysates.

RESEARCH USE

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