



Pex5p (yN-15): sc-22957

BACKGROUND

Pex5p (peroxisomal targeting signal 1, PTS1) is an import receptor for peroxisomal matrix proteins that docks onto Pex13p and delivers proteins into the peroxisome. Pex13p is a SH3 domain-containing integral membrane protein that binds Pex5p and Pex14p and is a central component of the protein import machinery. Pex14p is a peripheral membrane protein that binds Pex5p, Pex7p and Pex13p.

REFERENCES

1. Elgersma, Y., Kwast, L., Klein, A., Voorn-Brouwer, T., van den Berg, M., Metzger, B., America, T., Tabak, H.F. and Distel, B. 1996. The SH3 domain of the *Saccharomyces cerevisiae* peroxisomal membrane protein Pex13p functions as a docking site for Pex5p, a mobile receptor for the import PTS1-containing proteins. *J. Cell Biol.* 135: 97-109.
2. Will, G.K., Soukupova, M., Hong, X., Erdmann, K.S., Kiel, J.A., Dodt, G., Kunau, W.H. and Erdmann, R. 1999. Identification and characterization of the human orthologue of yeast Pex14p. *Mol. Cell. Biol.* 19: 2265-2277.
3. Bottger, G., Barnett, P., Klein, A.T., Kragt, A., Tabak, H.F. and Distel, B. 2000. *Saccharomyces cerevisiae* PTS1 receptor Pex5p interacts with the SH3 domain of the peroxisomal membrane protein Pex13p in an unconventional, non-PXXP-related manner. *Mol. Biol. Cell* 11: 3963-3976.
4. Collins, C.S., Kalish, J.E., Morrell, J.C., McCaffery, J.M. and Gould, S.J. 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.
5. Pires, J.R., Hong, X., Brockmann, C., Volkmer-Engert, R., Schneider-Mergener, J., Oschkinat, H. and Erdmann, R. 2003. The ScPex13p SH3 domain exposes two distinct binding sites for Pex5p and Pex14p. *J. Mol. Biol.* 326: 1427-1435.
6. Lee, J.R., Park, S.C., Kim, M.H., Jung, J.H., Shin, M.R., Lee, D.H., Cheon, M.G., Park, Y., Hahn, K.S. and Lee, S.Y. 2007. Antifungal activity of rice Pex5p, a receptor for peroxisomal matrix proteins. *Biochem. Biophys. Res. Commun.* 359: 941-946.
7. Williams, C., van den Berg, M., Sprenger, R.R., Distel, B. 2007. A conserved cysteine is essential for Pex4p-dependent ubiquitination of the peroxisomal import receptor Pex5p. *J. Biol. Chem.* 282: 22534-22543.
8. Platta, H.W., El Magraoui, F., Schlee, D., Grunau, S., Girzalsky, W. and Erdmann, R. 2007. Ubiquitination of the peroxisomal import receptor Pex5p is required for its recycling. *J. Cell Biol.* 177: 197-204.

SOURCE

Pex5p (yN-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Pex5p of *Saccharomyces cerevisiae* origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-22957 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Pex5p (yN-15) is recommended for detection of Pex5p of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight: 75 kDa.

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.

RESEARCH USE

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

PROTOCOLS

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