SANTA CRUZ BIOTECHNOLOGY, INC.

p150 (C-20): sc-8218



BACKGROUND

Accurate sorting and delivery of proteins to the proper organelles is essential for normal cellular functioning. The yeast Vps proteins are involved in sorting and delivering vacuolar proteins from the Golgi network, where they undergo post-translational modification, to the vacuole. Vps34p, a key component of this protein trafficking system, shares homology with proteins in the PI 3-kinase family, and is regulated by Vps15p. Vps15p is thought to recruit Vps34p to the membrane of the Gogli complex and to enhance Vps34p kinase activity. p150 is the human homolog of the yeast Vps15p and is ubiquitously expressed. p150, like Vps15p, is subject to post-translational modification, including myristalation.

REFERENCES

- 1. Rothman, J.H., et al. 1989. Protein targeting to the yeast vacuole. Trends Biochem. Sci. 14: 347-350.
- Stack, J.H., et al. 1994. Vps34p required for yeast vacuolar protein sorting is a multiple specificity kinase that exhibits both protein kinase and phosphatidylinositol-specific PI 3-kinase activities. J. Biol. Chem. 269: 31552-31562.
- 3. Stack, J.H., et al. 1995. Receptor-mediated protein sorting to the vacuole in yeast: roles for a protein kinase, a lipid kinase and GTP-binding proteins. Ann. Rev. Cell Dev. Biol. 11: 1-33.
- Stack, J.H., et al. 1995. Vesicle-mediated protein transport: regulatory interactions between the Vps15 protein kinase and the Vps34 PtdIns 3-kinase essential for protein sorting to the vacuole in yeast. J. Cell Biol. 129: 321-334.
- Volinia, S., et al. 1995. A human phosphatidylinositol 3-kinase complex related to the yeast Vps34p-Vps15p protein sorting system. EMBO J. 14: 3339-3348.
- Panaretou, C., et al. 1997. Characterization of p150, an adaptor protein for the human phosphatidylinositol (PtdIns) 3-kinase. Substrate presentation by phosphatidylinositol transfer protein to the p150. Ptdins 3-kinase complex. J. Biol. Chem. 272: 2477-2485.

CHROMOSOMAL LOCATION

Genetic locus: PIK3R4 (human) mapping to 3q22.1; Pik3r4 (mouse) mapping to 9 F1.

SOURCE

p150 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of p150 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8218 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p150 (C-20) is recommended for detection of p150 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).

p150 (C-20) is also recommended for detection of p150 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for p150 siRNA (h): sc-43986, p150 siRNA (m): sc-151957, p150 shRNA Plasmid (h): sc-43986-SH, p150 shRNA Plasmid (m): sc-151957-SH, p150 shRNA (h) Lentiviral Particles: sc-43986-V and p150 shRNA (m) Lentiviral Particles: sc-151957-V.

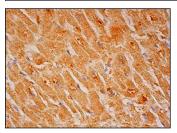
Molecular Weight of p150: 150 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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) Immunofluo-rescence: 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



p150 (C-20): sc-8218. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

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.