

# PI 3-kinase p100 (C-18): sc-54400

## BACKGROUND

Phosphatidylinositol 3-kinases (PI3Ks) phosphorylate the 3' OH position of the inositol ring of inositol lipids. PI 3-kinase p100 (phosphoinositide-3-kinase p100 subunit), also known as hVps34 or PIK3C3 (phosphoinositide-3-kinase, class III), is a member of the PI 3/PI 4-kinase family. It is ubiquitously expressed with predominant expression in skeletal muscle and is believed to participate in endosome to lysosome transport, multivesicular body formation, autophagy and retrograde endosome to Golgi transport. PI3-kinase p100 is the catalytic subunit of class III PI3Ks and forms a heterodimer with p150, a regulatory subunit of class 3 PI3Ks. PI 3-kinase p100 exclusively phosphorylates phosphatidylinositol to produce PtdIns3P. Unlike class I PI3Ks, whose activities are enhanced in the presence of magnesium, PI 3-kinase p100 activity is enhanced by manganese. Its activity can also be regulated by nutrients, suggesting an important role of PI-3 kinase p100 in the regulation of mTOR protein synthesis and autophagy.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PIK3C3 (human) mapping to 18q12.3; Pik3c3 (mouse) mapping to 18 B1.

## SOURCE

PI 3-kinase p100 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PI 3-kinase p100 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-54400 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PI 3-kinase p100 (C-18) is recommended for detection of PI 3-kinase p100 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PI 3-kinase p100 (C-18) is also recommended for detection of PI 3-kinase p100 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PI 3-kinase p100 siRNA (h): sc-62802, PI 3-kinase p100 siRNA (m): sc-62803, PI 3-kinase p100 shRNA Plasmid (h): sc-62802-SH, PI 3-kinase p100 shRNA Plasmid (m): sc-62803-SH, PI 3-kinase p100 shRNA (h) Lentiviral Particles: sc-62802-V and PI 3-kinase p100 shRNA (m) Lentiviral Particles: sc-62803-V.

Molecular Weight of PI 3-kinase p100: 102 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## 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.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.