

# PI 3-kinase C2 $\beta$ (22): sc-136031

## BACKGROUND

Phosphoinositide 3-kinases (PI 3-Ks) phosphorylate the 3'-OH position of the inositol ring of inositol lipids. They act as participants in signaling pathways that regulate cell growth by virtue of their activation in response to various mitogenic stimuli. PI 3-Ks are composed of a catalytic subunit, such as PI 3-kinase C2 $\beta$  (PIK3CB) and an adaptor subunit. PI 3-kinase C2 $\beta$ , also known as p110- $\beta$ , is a 1,070 amino acid protein that shares 42% identity with p110 of cow origin. It is expressed in several human and rodent cell lines. Studies predict that PI 3-kinase C2 $\beta$  has a role in modulating the formation and stability of  $\alpha$ 2B (ITGA2B)/ $\beta$ 3 (ITGB3) Integrin adhesion bonds, which are essential in shear force-induced platelet activation.

## REFERENCES

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- Roche, S., et al. 1998. A function for phosphatidylinositol 3-kinase  $\beta$  (p85 $\alpha$ -p110 $\beta$ ) in fibroblasts during mitogenesis: requirement for Insulin- and lysophosphatidic acid-mediated signal transduction. *Mol. Cell. Biol.* 18: 7119-7129.
- Kossila, M., et al. 2000. Gene encoding the catalytic subunit p110 $\beta$  of human phosphatidylinositol 3-kinase: cloning, genomic structure, and screening for variants in patients with type 2 diabetes. *Diabetes* 49: 1740-1743.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602925. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Jackson, S.P., et al. 2005. PI 3-kinase p110 $\beta$ : a new target for antithrombotic therapy. *Nat. Med.* 11: 507-514.

## CHROMOSOMAL LOCATION

Genetic locus: PIK3C2B (human) mapping to 1q32.1.

## SOURCE

PI 3-kinase C2 $\beta$  (22) is a mouse monoclonal antibody raised against amino acids 16-209 of PI 3-kinase C2 $\beta$  of human origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG<sub>1</sub> in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

## 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](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

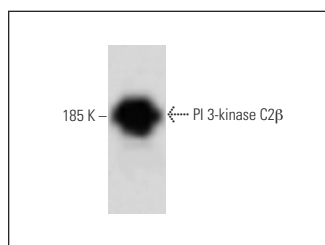
PI 3-kinase C2 $\beta$  (22) is recommended for detection of PI 3-kinase C2 $\beta$  of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for PI 3-kinase C2 $\beta$  siRNA (h): sc-61346, PI 3-kinase C2 $\beta$  shRNA Plasmid (h): sc-61346-SH and PI 3-kinase C2 $\beta$  shRNA (h) Lentiviral Particles: sc-61346-V.

Molecular Weight of PI 3-kinase C2 $\beta$ : 185 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or A-431 whole cell lysate: sc-2201.

## DATA



PI 3-kinase C2 $\beta$  (22): sc-136031. Western blot analysis of PI 3-kinase C2 $\beta$  expression in HeLa whole cell lysate.

## RESEARCH USE

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