

# PI 3-kinase C2 $\beta$ (H-300): sc-134766

## 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 bovine 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<sup>™</sup>. 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 anti-thrombotic therapy. *Nat. Med.* 11: 507-514.

## CHROMOSOMAL LOCATION

Genetic locus: PIK3C2B (human) mapping to 1q32.1; Pik3c2b (mouse) mapping to 1 E4.

## SOURCE

PI 3-kinase C2 $\beta$  (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of PI 3-kinase C2 $\beta$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4 $^{\circ}$  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) or our catalog for detailed protocols and support products.

## APPLICATIONS

PI 3-kinase C2 $\beta$  (H-300) is recommended for detection of PI 3-kinase C2 $\beta$  of mouse, rat and 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)], 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).

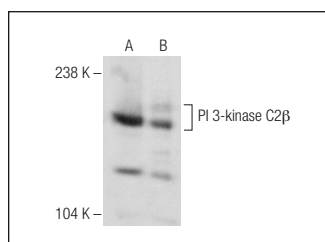
PI 3-kinase C2 $\beta$  (H-300) is also recommended for detection of PI 3-kinase C2 $\beta$  in additional species, including canine and bovine.

Suitable for use as control antibody for PI 3-kinase C2 $\beta$  siRNA (h): sc-61346, PI 3-kinase C2 $\beta$  siRNA (m): sc-155932, PI 3-kinase C2 $\beta$  shRNA Plasmid (h): sc-61346-SH, PI 3-kinase C2 $\beta$  shRNA Plasmid (m): sc-155932-SH, PI 3-kinase C2 $\beta$  shRNA (h) Lentiviral Particles: sc-61346-V and PI 3-kinase C2 $\beta$  shRNA (m) Lentiviral Particles: sc-155932-V.

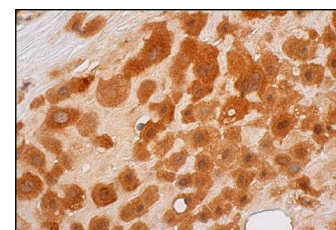
Molecular Weight of PI 3-kinase C2 $\beta$ : 185 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

## DATA



PI 3-kinase C2 $\beta$  (H-300): sc-134766. Western blot analysis of PI 3-kinase C2 $\beta$  expression in Raji (A) and HeLa (B) whole cell lysates.



PI 3-kinase C2 $\beta$  (H-300): sc-134766. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic and nuclear staining of decidual cells.

## 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.



Try **PI 3-kinase C2 $\beta$  (A-3): sc-377064** or **PI 3-kinase C2 $\beta$  (22): sc-136031**, our highly recommended monoclonal alternatives to PI 3-kinase C2 $\beta$  (H-300).