

# PI 3-kinase p85 $\alpha$ (S-20): sc-31970

## BACKGROUND

Phosphatidylinositol 3-kinase (PI 3-kinase) is composed of 85 kDa (p85) and 110 kDa (p110) subunits. p85 lacks PI 3-kinase activity and acts as an adapter, coupling p110 to activated protein tyrosine kinase. Two forms of p85 have been described (p85 $\alpha$  and p85 $\beta$ ), each possessing one SH3 and two SH2 domains. Various p110 isoforms have been identified. p110 $\alpha$  and p110 $\beta$  interact with p85 $\alpha$ , and p110 $\alpha$  has also been shown to interact with p85 $\beta$  *in vitro*. p110 $\delta$  expression is restricted to white blood cells. It has been shown to bind p85 $\alpha$  and p85 $\beta$ , but it apparently does not phosphorylate these subunits. p110 $\delta$  seems to have the capacity to autophosphorylate. p110 $\gamma$  does not interact with the p85 subunits. It has been shown to be activated by  $\alpha$  and  $\beta\gamma$  heterotrimeric G proteins.

## CHROMOSOMAL LOCATION

Genetic locus: PIK3R1 (human) mapping to 5q13.1; Pik3r1 (mouse) mapping to 13 D1.

## SOURCE

PI 3-kinase p85 $\alpha$  (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PI 3-kinase p85 $\alpha$  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.

Blocking peptide available for competition studies, sc-31970 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4 $^{\circ}$  C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

PI 3-kinase p85 $\alpha$  (S-20) is recommended for detection of PI 3-kinase p85 $\alpha$  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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PI 3-kinase p85 $\alpha$  (S-20) is also recommended for detection of PI 3-kinase p85 $\alpha$  in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PI 3-kinase p85 $\alpha$  siRNA (h): sc-36217, PI 3-kinase p85 $\alpha$  siRNA (m): sc-36218, PI 3-kinase p85 $\alpha$  shRNA Plasmid (h): sc-36217-SH, PI 3-kinase p85 $\alpha$  shRNA Plasmid (m): sc-36218-SH, PI 3-kinase p85 $\alpha$  shRNA (h) Lentiviral Particles: sc-36217-V and PI 3-kinase p85 $\alpha$  shRNA (m) Lentiviral Particles: sc-36218-V.

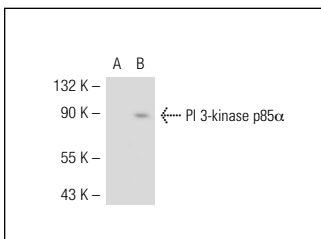
Molecular Weight of PI 3-kinase p85 $\alpha$ : 85 kDa.

Positive Controls: PI 3-kinase p85 $\alpha$  (m): 293T Lysate: sc-122557, Caki-1 cell lysate: sc-2224 or COLO 320DM cell lysate: sc-2226.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



PI 3-kinase p85 $\alpha$  (S-20): sc-31970. Western blot analysis of PI 3-kinase p85 $\alpha$  expression in non-transfected: sc-117752 (A) and mouse PI 3-kinase p85 $\alpha$  transfected: sc-122557 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Alexandru, N., et al. 2011. Platelet activation in hypertension associated with hypercholesterolemia: effects of irbesartan. *J. Thromb. Haemost.* 9: 173-184.

## 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 p85 $\alpha$ / $\beta$ / $\gamma$  (D-9): sc-374534** or **PI 3-kinase p85 $\alpha$  (C-1): sc-376112**, our highly recommended monoclonal alternatives to PI 3-kinase p85 $\alpha$  (S-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **PI 3-kinase p85 $\alpha$ / $\beta$ / $\gamma$  (D-9): sc-374534**.