

# PI 4-kinase II $\beta$ (E-14): sc-162013

## BACKGROUND

Phosphatidylinositol (PI) kinases participate in the first step in activating important cellular effectors, such as PIP2 (phosphatidylinositol bisphosphate) and PTEN. Unlike other PI-kinases, PI 4-kinase family members only phosphorylate phosphatidylinositols, are potently inhibited by adenosine and lack a trans-membrane domain. Total PI 4-kinase activity is dependent upon PI 4-kinase  $\beta$ , PI 4-kinase  $\alpha$ , PI 4-kinase II  $\alpha$  and PI 4-kinase II  $\beta$  activities. PI 4-kinase II  $\beta$  (Phosphatidylinositol 4-kinase type II- $\beta$ ) is a 481 amino acid protein that is recruited to the membrane from the cytosol to stimulate synthesis of PIP2 and, in this way, PI 4-kinase II  $\beta$  contributes to the production of IP3. PI 4-kinase II  $\beta$  may also be involved in the regulation of vesicular trafficking due to its associations with the endoplasmic reticulum and the golgi apparatus. T-cells specific for PI 4-kinase II  $\beta$  lyse normal and malignant hematopoietic cells, suggesting that PI 4-kinase II  $\beta$  may play a role in antitumor immunity.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PI4K2B (human) mapping to 4p15.2.

## SOURCE

PI 4-kinase II  $\beta$  (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PI 4-kinase II  $\beta$  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.

Blocking peptide available for competition studies, sc-162013 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PI 4-kinase II  $\beta$  (E-14) is recommended for detection of PI 4-kinase II  $\beta$  of 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); non cross-reactive PI 4-kinase II  $\alpha$ .

Suitable for use as control antibody for PI 4-kinase II  $\beta$  siRNA (h): sc-89203, PI 4-kinase II  $\beta$  shRNA Plasmid (h): sc-89203-SH and PI 4-kinase II  $\beta$  shRNA (h) Lentiviral Particles: sc-89203-V.

Molecular Weight of PI 4-kinase II  $\beta$ : 54 kDa.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> 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.