

# PKN $\beta$ (D-16): sc-67771

## BACKGROUND

PKN $\beta$  (protein kinase PKN $\beta$ ) also known as PKN3, is a protein kinase-related molecule belonging to the AGC serine/threonine protein kinase family. It contains one protein kinase domain, three REM repeats and one AGC-kinase domain at its C-terminus. PKN $\beta$  is not expressed in normal adult tissues but is found in prostate tumors and various other cancer cell lines localizing to the nucleus and the perinuclear region of the cytoplasm. PKN $\beta$  may play a role in the invasiveness of malignant prostate cancer. This is suggested by the impaired growth and reduced metastases formation after knockdown of PKN $\beta$  expression in mouse prostate tumor cells. PKN $\beta$  expression and activity is regulated by PI 3-kinase. In humans, the phosphorylation of PKN $\beta$  at Thr718 and Thr860 is required for the activation of its kinase activity.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Pkn3 (rat) mapping to 3p12.

## SOURCE

PKN $\beta$  (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PKN $\beta$  of rat origin.

## RESEARCH USE

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

## 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-67771 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PKN $\beta$  (D-16) is recommended for detection of PKN $\beta$  of rat 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).

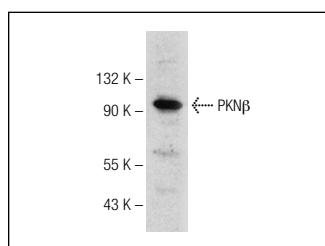
Molecular Weight of PKN $\beta$ : 99 kDa.

Positive Controls: LNCaP cell lysate: sc-2231.

## 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>TM</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>TM</sup> 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<sup>TM</sup> Mounting Medium: sc-24941.

## DATA



PKN $\beta$  (D-16): sc-67771. Western blot analysis of PKN $\beta$  expression in LNCaP whole cell lysate.

## 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.