

PIPK II (N-19): sc-1330

BACKGROUND

Phosphatidylinositol phosphate kinases (PIPKs) synthesize phosphatidylinositol-4,5-bisphosphate, which regulates various processes including cell proliferation, survival, membrane trafficking and cytoskeletal organization. The PIPK family is divided into three different classes, designated type I, type II and type III, each of which contain an activation loop, which determines their enzymatic specificity and subcellular targeting. The type I PIPKs (PIPK I) consist of PIPK I α , β and γ , while the type II PIPKs (PIPK II) consist of PIPK II α and β , both of which exhibit high levels of expression in the brain. Type III PIPK (designated PIP5K III) localizes to the endosome membrane where it participates in endosome-related membrane trafficking and, like other PIPK proteins, generates phosphatidylinositol-4,5-bisphosphate via ATP-dependent phosphorylation. Due to their ability to regulate phosphatidylinositol-4,5-bisphosphate production, the PIPK proteins are essential messengers for signal transduction pathways throughout the body.

CHROMOSOMAL LOCATION

Genetic locus: PIP4K2A (human) mapping to 10p12.2; Pip4k2a (mouse) mapping to 2 A3.

SOURCE

PIPK II (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PIPK II of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-1330 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

PIPK II (N-19) is recommended for detection of PIPK II α of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

PIPK II (N-19) is also recommended for detection of PIPK II α in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for PIPK II α siRNA (h): sc-39139, PIPK II α siRNA (m): sc-155934, PIPK II α shRNA Plasmid (h): sc-39139-SH, PIPK II α shRNA Plasmid (m): sc-155934-SH, PIPK II α shRNA (h) Lentiviral Particles: sc-39139-V and PIPK II α shRNA (m) Lentiviral Particles: sc-155934-V.

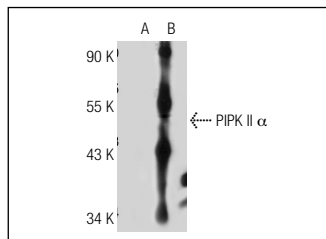
Molecular Weight of PIPK II: 47-53 kDa.

Positive Controls: PIPK II α (m): 293T Lysate: sc-127337.

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



PIPK II (N-19): sc-1330. Western blot analysis of PIPK II α expression in non-transfected: sc-117752 (A) and mouse PIPK II α transfected: sc-127337 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Huang, Z., et al. 2001. Regulation of type II phosphatidylinositol phosphate kinase by tyrosine phosphorylation in bovine rod outer segments. *Biochemistry* 40: 4550-4559.
- Abedinpour, P., et al. 2003. Isolation of a caveolae-enriched fraction from rat lung by affinity partitioning and sucrose gradient centrifugation. *Anal. Biochem.* 313: 1-8.
- Rozenvayn, N., et al. 2003. Protein kinase C mediates translocation of type II phosphatidylinositol 5-phosphate 4-kinase required for platelet α -granule secretion. *J. Biol. Chem.* 278: 8126-8134.
- Ducummon, C.C., et al. 2006. Localization of the Rho GTPases and some Rho effector proteins in the sperm of several mammalian species. *Zygote* 14: 249-257.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.


 MONOS
Satisfation
Guaranteed

Try **PIPK II (D-3): sc-393246** or **PIPK II α (149.1): sc-100406**, our highly recommended monoclonal alternatives to PIPK II (N-19).