

INPP5F (N-12): sc-138353

BACKGROUND

Inositol and phosphatidylinositol phosphates are important for numerous cellular processes, including neuronal survival and signal transductions from growth factors, neurotransmitters and G protein coupled receptors. INPP5F (inositol polyphosphate 5-phosphatase F), also known as phosphatidylinositol phosphatase SAC2, is a 1,132 amino acid protein that exhibits 5-phosphatase activity specific for phosphatidylinositol 4,5-bisphosphate and phosphatidylinositol 3,4,5-triphosphate. INPP5F also modulates the Akt/GSK-3 β pathway by decreasing Akt and GSK-3 β phosphorylation. Containing one SAC domain, INPP5F is ubiquitously expressed, but especially abundant in brain, heart, skeletal muscle and kidney. Inositol polyphosphate 5-phosphatases usually have two conserved motifs that are essential for 5-phosphatase activity. However, INPP5F does not contain such motifs and phosphatase activity seems to exist in the SAC domain, suggesting a new type of phosphoinositide 5-phosphatase.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: INPP5F (human) mapping to 10q26.11; Inpp5f (mouse) mapping to 7 F3.

SOURCE

INPP5F (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of INPP5F 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-138353 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

INPP5F (N-12) is recommended for detection of INPP5F isoforms 1-3 of mouse, rat and 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 with INPP5B or INPP5E.

INPP5F (N-12) is also recommended for detection of INPP5F isoforms 1-3 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for INPP5F siRNA (h): sc-90442, INPP5F siRNA (m): sc-146242, INPP5F shRNA Plasmid (h): sc-90442-SH, INPP5F shRNA Plasmid (m): sc-146242-SH, INPP5F shRNA (h) Lentiviral Particles: sc-90442-V and INPP5F shRNA (m) Lentiviral Particles: sc-146242-V.

Molecular Weight of INPP5F isoform 1: 128 kDa.

Molecular Weight of INPP5F isoform 2: 44 kDa.

Molecular Weight of INPP5F isoform 3: 25 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

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) 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.

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 or our catalog for detailed protocols and support products.



Try **INPP5F (A-6): sc-514657**, our highly recommended monoclonal alternative to INPP5F (N-12).