SANTA CRUZ BIOTECHNOLOGY, INC.

INPP5J (G-15): sc-82702

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. INPP5J (inositol polyphosphate-5-phosphatase J), also known as phosphatidylinositol 4,5-bisphosphate 5-phosphatase A, PIPP (proline-rich inositol polyphosphate 5-phosphatase), PIB5PA or INPP5, is a 1,006 amino acid cytoplasmic protein that assists in the conversion of inositol 1,4-bisphosphate from inositol 1,4,5-trisphosphate. Expressed in lung, stomach, kidney, brain, small intestine and heart, INPP5J localizes to membrane ruffles, where it may also participate in modulating inositol and phosphatidylinositol polyphosphate-binding proteins. Encoded by a gene located on human chromosome 22, INPP5J undergoes alternative splicing to produce three isoforms.

REFERENCES

1. Mochizuki, Y. and Takenawa, T. 1999. Novel inositol polyphosphate 5-phosphatase localizes at membrane ruffles. J. Biol. Chem. 274: 36790-36795.
2. Krämer, J., Aguirre-Arteta, A.M., Thiel, C., Gross, C.M., Dietz, R., Cardoso, M.C. and Leonhardt, H. 1999. A novel isoform of the smooth muscle cell differentiation marker smoothelin. J. Mol. Med. 77: 294-298.
3. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 606481. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Astle, M.V., Seaton, G., Davies, E.M., Fedele, C.G., Rahman, P., Arsala, L. and Mitchell, C.A. 2006. Regulation of phosphoinositide signaling by the inositol polyphosphate 5-phosphatases. IUBMB Life 58: 451-456.
5. Ooms, L.M., Fedele, C.G., Astle, M.V., Ivetac, I., Cheung, V., Pearson, R.B., Layton, M.J., Forrai, A., Nandurkar, H.H. and Mitchell, C.A. 2006. The inositol polyphosphate 5-phosphatase, PIPP, Is a novel regulator of phosphoinositide 3-kinase-dependent neurite elongation. Mol. Biol. Cell 17: 607-622.

CHROMOSOMAL LOCATION

Genetic locus: INPP5J (human) mapping to 22q12.2; Inpp5j (mouse) mapping to 11 A1.

SOURCE

INPP5J (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of INPP5J of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-82702 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

INPP5J (G-15) is recommended for detection of INPP5J 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).

INPP5J (G-15) is also recommended for detection of INPP5J in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for INPP5J siRNA (h): sc-76130, INPP5J siRNA (m): sc-76131, INPP5J shRNA Plasmid (h): sc-76130-SH, INPP5J shRNA Plasmid (m): sc-76131-SH, INPP5J shRNA (h) Lentiviral Particles: sc-76130-V and INPP5J shRNA (m) Lentiviral Particles: sc-76131-V.

Molecular Weight of INPP5J: 107 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™ 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.

SELECT PRODUCT CITATIONS

1. Ye, Y., Li, Q., Hu, W.L., Tseng, H.Y., Jin, L., Zhang, X.D., Zhang, L.J. and Yang, S. 2013. Loss of PI(4,5)P2 5-phosphatase A contributes to resistance of human melanoma cells to RAF/MEK inhibitors. Transl. Oncol. 6: 470-481.

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.