SANTA CRUZ BIOTECHNOLOGY, INC.

INPP1 (F-9): sc-393584

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. INPP1 (inositol polyphosphate 1-phosphatase) is a 399 amino acid protein that is ubiquitously expressed, with highest levels in pancreas and kidney. Belonging to the inositol monophosphatase family, INPP1 is involved in the phosphatidylinositol signaling pathway. INPP1 removes the phosphate group at position one of the inositol ring from the polyphosphates inositol 1,4-bisphosphate and inositol 1,3,4-trisphophosphate. It is suggested that ovexpressed INPP1 reduces ANP (atrial natriuretic peptide) and MLC2 (Myosin light chain 2) responses associated with contraction-induced hypertrophy. Defects of INPP1 may be associated with autism and manic-depressive illness.

REFERENCES

1. Okabe, I. and Nussbaum, R.L. 1995. Identification and chromosomal mapping of the mouse inositol polyphosphate 1-phosphatase gene. Genomics 30: 358-360.
2. Steen, V.M., et al. 1998. The polymorphic inositol polyphosphate 1-phosphatase gene as a candidate for pharmacogenetic prediction of lithium-responsive manic-depressive illness. Pharmacogenetics 8: 259-268.
3. Lovlie, R., et al. 1999. Genomic structure and sequence analysis of a human inositol polyphosphate 1-phosphatase gene (INPP1). Pharmacogenetics 9: 517-528.
4. Li, S.R., et al. 2000. Transcription of the inositol polyphosphate 1-phosphatase gene (INPP1) is upregulated in human colorectal cancer. Mol. Carcinog. 27: 322-329.
5. Woodcock, E.A., et al. 2002. Inositol polyphosphate 1-phosphatase is a novel antihypertrophic factor. J. Biol. Chem. 277: 22734-22742.

CHROMOSOMAL LOCATION

Genetic locus: INPP1 (human) mapping to 2q32.2.

SOURCE

INPP1 (F-9) is a mouse monoclonal antibody raised against amino acids 1-72 mapping at the N-terminus of INPP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

INPP1 (F-9) is available conjugated to agarose (sc-393584 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393584 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393584 PE), fluorescein (sc-393584 FITC), Alexa Fluor® 488 (sc-393584 AF488), Alexa Fluor® 546 (sc-393584 AF546), Alexa Fluor® 594 (sc-393584 AF594) or Alexa Fluor® 647 (sc-393584 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393584 AF680) or Alexa Fluor® 790 (sc-393584 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

INPP1 (F-9) is recommended for detection of INPP1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for INPP1 siRNA (h): sc-94459, INPP1 shRNA Plasmid (h): sc-94459-SH and INPP1 shRNA (h) Lentiviral Particles: sc-94459-V.

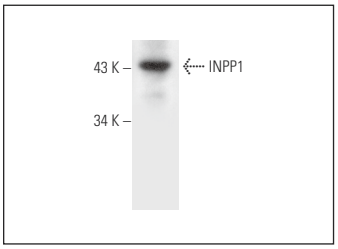
Molecular Weight of INPP1: 44 kDa.

Positive Controls: human tonsil tissue extract: sc-364263.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



INPP1 (F-9): sc-393584. Western blot analysis of INPP1 expression in human tonsil tissue extract.

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 for detailed protocols and support products.