

# INPP1 (F-8): sc-271687

## 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-trisphosphate. It is suggested that overexpressed 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

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- 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.
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- Piccardi, M.P., et al. 2002. Manic-depressive illness: an association study with the inositol polyphosphate 1-phosphatase and serotonin transporter genes. *Psychiatr. Genet.* 12: 23-27.
- Serajee, F.J., et al. 2003. Association of INPP1, PIK3CG, and TSC2 gene variants with autistic disorder: implications for phosphatidylinositol signalling in autism. *J. Med. Genet.* 40: e119.

## CHROMOSOMAL LOCATION

Genetic locus: INPP1 (human) mapping to 2q32.2; Inpp1 (mouse) mapping to 1 C1.1.

## SOURCE

INPP1 (F-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 327-363 within an internal region of INPP1 of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271687 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

INPP1 (F-8) is recommended for detection of INPP1 of mouse, rat and 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 siRNA (m): sc-146240, INPP1 shRNA Plasmid (h): sc-94459-SH, INPP1 shRNA Plasmid (m): sc-146240-SH, INPP1 shRNA (h) Lentiviral Particles: sc-94459-V and INPP1 shRNA (m) Lentiviral Particles: sc-146240-V.

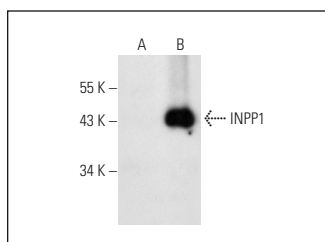
Molecular Weight of INPP1: 44 kDa.

Positive Controls: INPP1 (h2): 293 Lysate: sc-112783 or Hep G2 cell lysate: sc-2227.

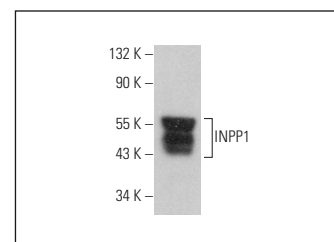
## RECOMMENDED SUPPORT REAGENTS

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-8): sc-271687. Western blot analysis of INPP1 expression in non-transfected: sc-110760 (A) and human INPP1 transfected: sc-112783 (B) 293 whole cell lysates.



INPP1 (F-8): sc-271687. Western blot analysis of INPP1 expression in Hep G2 whole cell lysate.

## STORAGE

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