

INPP5E (S-13): sc-161086

BACKGROUND

INPP5E (inositol polyphosphate 5-phosphatase), also known as phosphatidylinositol polyphosphate 5-phosphatase type IV, is a 644 amino acid peripheral membrane protein associated with Golgi stacks. Belonging to the inositol-1,4,5-trisphosphate 5-phosphatase type IV family, INPP5E converts phosphatidylinositol-3,4,5-trisphosphate (PtdIns 3,4,5-P₃) to PtdIns-P₂. While inactive towards water soluble inositol phosphates, the activity of INPP5E is specific for lipid substrates. INPP5E becomes phosphorylated upon DNA damage and is expressed in brain, heart, pancreas, testis and spleen. Defects in INPP5E are the cause of Joubert syndrome type 1 (JBTS1), a disorder presenting with cerebellar ataxia, oculomotor apraxia, hypotonia, neonatal breathing abnormalities and psychomotor delay. In addition, mutations in the INPP5E gene may lead to mental retardation-truncal obesity-retinal dystrophy-micropenis (MORMS), an autosomal recessive disorder characterized by moderate mental retardation, truncal obesity, congenital non-progressive retinal dystrophy, and micropenis in males.

REFERENCES

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4. Matsuoka, S., et al. 2007. ATM and ATR substrate analysis reveals extensive protein networks responsive to DNA damage. *Science* 316: 1160-1166.
5. Jacoby, M., et al. 2009. INPP5E mutations cause primary cilium signaling defects, ciliary instability and ciliopathies in human and mouse. *Nat. Genet.* 41: 1027-1031.
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CHROMOSOMAL LOCATION

Genetic locus: INPP5E (human) mapping to 9q34.3; Inpp5e (mouse) mapping to 2 A3.

SOURCE

INPP5E (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of INPP5E 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-161086 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

INPP5E (S-13) is recommended for detection of INPP5E of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with INPP5B or INPP5F.

INPP5E (S-13) is also recommended for detection of INPP5E in additional species, including bovine.

Suitable for use as control antibody for INPP5E siRNA (h): sc-92496, INPP5E siRNA (m): sc-146241, INPP5E shRNA Plasmid (h): sc-92496-SH, INPP5E shRNA Plasmid (m): sc-146241-SH, INPP5E shRNA (h) Lentiviral Particles: sc-92496-V and INPP5E shRNA (m) Lentiviral Particles: sc-146241-V.

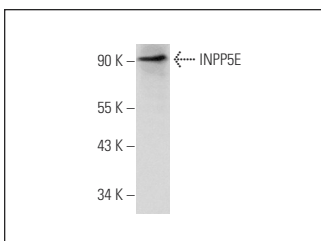
Molecular Weight of INPP5E isoforms: 70/66 kDa.

Positive Controls: mouse testis extract: sc-2405.

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



INPP5E (S-13): sc-161086. Western blot analysis of INPP5E expression in mouse testis 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 or our catalog for detailed protocols and support products.