

ISYNA1 (H-300): sc-134687

BACKGROUND

Myo-inositol is an important constituent of membrane phospholipids and is a precursor for the phosphoinositide signaling pathway. ISYNA1 (inositol-3-phosphate synthase 1), also known as IPS, INO1 or INOS, is a 558 amino acid enzyme belonging to the myo-inositol-1-phosphate synthase family. Highly expressed in testis, ovary, heart, placenta and pancreas, with weak expression in blood leukocytes, thymus, skeletal muscle and colon, SYNA1 is the key enzyme myo-inositol biosynthesis, as it catalyzes the conversion of glucose 6-phosphate to 1-myo-inositol 1-phosphate in a NAD-dependent manner. ISYNA1 is the rate-limiting enzyme in the synthesis of all inositol-containing compounds. ISYNA1 may be upregulated by E2F-1, and is inhibited by valproate (VPA) and lithium, which are mood-stabilizing drugs.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ISYNA1 (human) mapping to 19p13.11; *Isyna1* (mouse) mapping to 8 B3.3.

SOURCE

ISYNA1 (H-300) is a rabbit polyclonal antibody raised against amino acids 259-558 mapping at the C-terminus of ISYNA1 of human origin.

RESEARCH USE

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

PRODUCT

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

APPLICATIONS

ISYNA1 (H-300) is recommended for detection of ISYNA1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

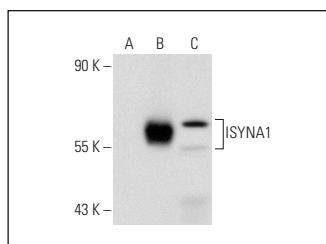
ISYNA1 (H-300) is also recommended for detection of ISYNA1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ISYNA1 siRNA (h): sc-97862, ISYNA1 siRNA (m): sc-146305, ISYNA1 shRNA Plasmid (h): sc-97862-SH, ISYNA1 shRNA Plasmid (m): sc-146305-SH, ISYNA1 shRNA (h) Lentiviral Particles: sc-97862-V and ISYNA1 shRNA (m) Lentiviral Particles: sc-146305-V.

Molecular Weight of ISYNA1: 62 kDa.

Positive Controls: A549 cell lysate: sc-2413 or ISYNA1 (m2): 293T Lysate: sc-121125

DATA



ISYNA1 (H-300): sc-134687. Western blot analysis of ISYNA1 expression in non-transfected 293T: sc-117752 (A), mouse ISYNA1 transfected 293T: sc-121125 (B) and A549 (C) whole cell lysates.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **ISYNA1 (C-9): sc-271830** or **ISYNA1 (C-8): sc-377245**, our highly recommended monoclonal alternatives to ISYNA1 (H-300).