SANTA CRUZ BIOTECHNOLOGY, INC.

Acatin (N-12): sc-82471

BACKGROUND

Acatin, also known as AT1, AT-1 or SLC33A1 (solute carrier family 33 member 1), is a multi-pass membrane protein that functions to transport acetyl-CoA into the lumen of the Golgi apparatus. Acatin contains several transmembrane domains and is highly expressed in pancreas, heart, brain, lung, liver, placenta and kidneys. Found in the membrane of both the Golgi and the endoplasmic reticulum (ER), Acatin is required for the O-acetylation of gangliosides; a process that uses acetyl-CoA as the acid donor to produce acetylated sialic acid residues on glycoproteins and gangliosides. There are several different types of sialic acid residues that are found on gangliosides, all of which contribute to the complexity and diversity of sugar chains. When the sialic acid residues are acetylated, the gangliosides participate in pathways such as neural cell differentiation and migration.

REFERENCES

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6. Hirabayashi, Y., Kanamori, A., Nomura, K.H. and Nomura, K. 2004. The acetyl-CoA transporter family SLC33. Pflugers Arch. 447: 760-762.
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CHROMOSOMAL LOCATION

Genetic locus: SLC33A1 (human) mapping to 3q25.31; Slc33a1 (mouse) mapping to 3 E1.

SOURCE

Acatin (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of Acatin 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-82471 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Acatin (N-12) is recommended for detection of Acatin 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).

Acatin (N-12) is also recommended for detection of Acatin in additional species, including bovine and porcine.

Suitable for use as control antibody for Acatin siRNA (h): sc-72429, Acatin siRNA (m): sc-72430, Acatin shRNA Plasmid (h): sc-72429-SH, Acatin shRNA Plasmid (m): sc-72430-SH, Acatin shRNA (h) Lentiviral Particles: sc-72429-V and Acatin shRNA (m) Lentiviral Particles: sc-72430-V.

Molecular Weight of Acatin: 61 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.

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.