

Synip (G-20): sc-15428

BACKGROUND

Insulin-responsive glucose transporter (GLUT4) is a member of the facilitative glucose transporters that is predominantly, but not exclusively, expressed in adipose tissues and skeletal and cardiac muscle. Insulin-stimulated glucose transport and GLUT4 translocation between the plasma membrane and one or more intracellular compartments require regulated interaction between the v-SNARE, VAMP2, t-SNARE and syntaxin 4. A novel syntaxin 4-binding protein, Synip, specifically interacts with syntaxin 4 protein. Insulin induces the dissociation of the Synip: syntaxin 4 complex by reducing the binding affinity of Synip for syntaxin 4. However, the C-terminal domain of Synip does not dissociate from syntaxin 4 in response to Insulin, but rather inhibits glucose transport and GLUT4 translocation. In conclusion, Synip is an Insulin-regulated syntaxin 4-binding protein directly involved in the control of glucose transport and GLUT4 vesicle translocation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: STXBP4 (human) mapping to 17q22; Stxbp4 (mouse) mapping to 11 D.

SOURCE

Synip (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Synip of mouse 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-15428 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Synip (G-20) is recommended for detection of Synip 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).

Synip (G-20) is also recommended for detection of Synip in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Synip siRNA (h): sc-106584, Synip siRNA (m): sc-153987, Synip shRNA Plasmid (h): sc-106584-SH, Synip shRNA Plasmid (m): sc-153987-SH, Synip shRNA (h) Lentiviral Particles: sc-106584-V and Synip shRNA (m) Lentiviral Particles: sc-153987-V.

Molecular Weight of Synip isoforms: 25/28/58/62 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.