

Synaptotagmin VI (H-54): sc-292911

BACKGROUND

Synaptotagmins are a large gene family of synaptic vesicle type III integral membrane proteins that function as regulators of both exocytosis and endocytosis and are involved in neurotransmitter secretion from small secretory vesicles. Calcium binds to Synaptotagmin I which triggers neurotransmitter release at the synapse. Synaptotagmin II is phosphorylated by WNK1 in a process that regulates calcium-dependent interactions. Synaptotagmin III is involved in calcium-dependent exocytosis of secretory vesicles in endocrine cells and neurons. Synaptotagmin IV is expressed in neuronal tissues, and has the highest mRNA levels in the hippocampus. The proximity of the Synaptotagmin IV gene to markers of several psychiatric disorders suggest an involvement of synaptotagmin IV in human disease. Synaptotagmin V is a dense-core vesicle-specific protein that regulates a specific type of calcium-regulated secretion. Synaptotagmin VI interacts with adaptor protein-2 in a calcium-independent manner. Synaptotagmin VII is widely expressed in non-neuronal tissues.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SYT6 (human) mapping to 1p13.2; Syt6 (mouse) mapping to 3 F2.2.

SOURCE

Synaptotagmin VI (H-54) is a rabbit polyclonal antibody raised against amino acids 84-137 mapping near the N-terminus of Synaptotagmin VI 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.

STORAGE

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

APPLICATIONS

Synaptotagmin VI (H-54) is recommended for detection of Synaptotagmin VI 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 other Synaptotagmin family members.

Synaptotagmin VI (H-54) is also recommended for detection of Synaptotagmin VI in additional species, including equine, bovine and porcine.

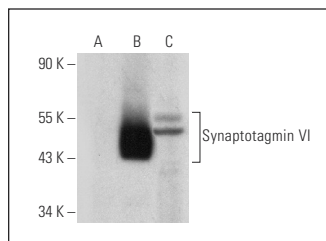
Suitable for use as control antibody for Synaptotagmin VI siRNA (h): sc-76618, Synaptotagmin VI siRNA (m): sc-76619, Synaptotagmin VI shRNA Plasmid (h): sc-76618-SH, Synaptotagmin VI shRNA Plasmid (m): sc-76619-SH, Synaptotagmin VI shRNA (h) Lentiviral Particles: sc-76618-V and Synaptotagmin VI shRNA (m) Lentiviral Particles: sc-76619-V.

Molecular Weight (observed) of Synaptotagmin VI: 74 kDa,

Molecular Weight (predicted) of Synaptotagmin VI isoforms 1/2: 57/48 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, mouse liver extract: sc-2256 or Synaptotagmin VI (h): 293T Lysate: sc-115895.

DATA



Synaptotagmin VI (H-54): sc-292911. Western blot analysis of Synaptotagmin VI expression in non-transfected: sc-117752 (A) and human Synaptotagmin VI transfected: sc-115895 (B) 293T whole cell lysates and mouse liver tissue extract (C).

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.

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Try **Synaptotagmin VI (A-5): sc-390320** or **Synaptotagmin VI (A-12): sc-390321**, our highly recommended monoclonal alternatives to Synaptotagmin VI (H-54).