BACKGROUND

The synaptogyrin family of proteins are integral membrane proteins containing four transmembrane regions. Synaptogyrins are tyrosine-phosphorylated proteins with two neuronal isoforms (Synaptogyrin-1 and -3) and one ubiquitous isoform (Synaptogyrin-2). Synaptophysin and synaptogyrin represent the major constituents of synaptic vesicles. Synaptogyrin-1 is associated with presynaptic vesicles in neuronal cells. Synaptogyrin-2, also known as cellugyrin, has a tyrosine phosphorylated C-terminal cytoplasmic tail and is involved in the regulation of membrane traffic in non-neuronal cells. Synaptogyrin-3 is expressed mainly in brain and placenta. Synaptogyrin-4 is a 234 amino acid protein encoded by the SYNGR4 gene.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: SYNGR1 (human) mapping to 22q13.1; Syngr1 (mouse) mapping to 15 E1.

SOURCE

Synaptogyrin-1 (A-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 208-231 at the C-terminus of Synaptogyrin-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393456 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Synaptogyrin-1 (A-6) is recommended for detection of Synaptogyrin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Synaptogyrin-1 siRNA (h): sc-45551, Synaptogyrin-1 siRNA (m): sc-45552, Synaptogyrin-1 shRNA Plasmid (h): sc-45561-SH, Synaptogyrin-1 shRNA Plasmid (m): sc-45562-SH, Synaptogyrin-1 shRNA (h) Lentiviral Particles: sc-45551-V and Synaptogyrin-1 shRNA (m) Lentiviral Particles: sc-45552-V.

Molecular Weight of Synaptogyrin-1: 26 kDa.


RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminal Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

RESEARCH USE

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

PROTOCOLS

See our website at www.scbt.com for detailed protocols and support products.