**BACKGROUND**

Synaptic vesicle recycling involves numerous proteins that contribute to the formation and trafficking of the SNARE complexes throughout the cell. Synaptoporin, also designated synaptophysin 2, is an integral membrane protein of small synaptic vesicles that belongs to the synaptophysin/synaptobrevin family. Synaptoporin is highly homologous to synaptophysin 1 and both Synaptoporin and synaptophysin 1 contain four transmembrane domains and a short cytoplasmic tail. The Synaptoporin protein also contains one MARVEL domain, a membrane-associating domain found in lipid-associating proteins, and displays calcium-binding activity which may be localized to its cytoplasmic tail. Synaptophysin and Synaptoporin regulate the formation of the vesicles by competing with components of the SNARE complexes to respectively inhibit either the assembly or the secretion of the synaptic vesicles.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: SYNPR (human) mapping to 3p14.2; Synpr (mouse) mapping to 14 A1.

**SOURCE**

Synaptoporin (C-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 189-223 within an internal region of Synaptoporin of human origin.

**PRODUCT**

Each vial contains 200 µg IgG<sub>2a</sub> 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-376761 P (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**RESEARCH USE**

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

**APPLICATIONS**

Synaptoporin (C-9) is recommended for detection of Synaptoporin 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Synaptoporin (C-9) is also recommended for detection of Synaptoporin in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Synaptoporin siRNA (h): sc-61626, Synaptoporin siRNA (m): sc-61627, Synaptoporin shRNA Plasmid (h): sc-61626-SH, Synaptoporin shRNA Plasmid (m): sc-61627-SH, Synaptoporin shRNA (h) Lentiviral Particles: sc-61626-V and Synaptoporin shRNA (m) Lentiviral Particles: sc-61627-V.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG<sub>κ</sub> BP-HRP: sc-516102 or m-IgG<sub>κ</sub> 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 Luminol Reagent: sc-2048. ZL Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG<sub>κ</sub> BP-RTC: sc-516140 or m-IgG<sub>κ</sub> 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**

**STORAGE**

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