

# Synaptoporin (C-14): sc-51212

## 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, 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

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3. Jinno, S. and Kosaka, T. 2003. Heterogeneous expression of the cholecystokinin-like immunoreactivity in the mouse hippocampus, with special reference to the dorsoventral difference. *Neuroscience* 122: 869-884.
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5. Voigt, C., Metzdorf, R. and Gahr, M. 2004. Differential expression pattern and steroid hormone sensitivity of SNAP 25 and Synaptoporin mRNA in the telencephalic song control nucleus HVC of the zebra finch. *J. Comp. Neurol.* 475: 83-94.

## CHROMOSOMAL LOCATION

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

## SOURCE

Synaptoporin (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Synaptoporin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-51212 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Synaptoporin (C-14) is recommended for detection of Synaptoporin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

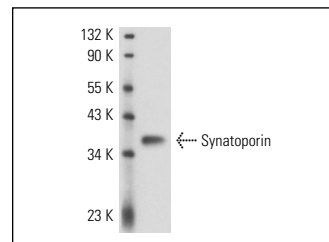
Synaptoporin (C-14) is also recommended for detection of Synaptoporin in additional species, including bovine.

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.

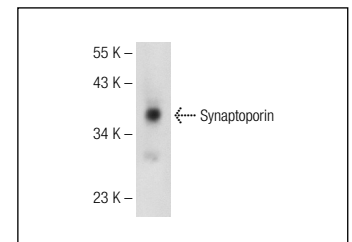
Molecular Weight of Synaptoporin: 37 kDa.

Positive Controls: rat brain extract: sc-2392 or mouse brain extract: sc-2253.

## DATA



Synaptoporin (C-14): sc-51212. Western blot analysis of Synaptoporin expression in rat brain tissue extract



Synaptoporin (C-14): sc-51212. Western blot analysis of Synaptoporin expression in mouse brain tissue extract.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **Synaptoporin (C-9): sc-376761** or **Synaptoporin (F-1): sc-398921**, our highly recommended monoclonal alternatives to Synaptoporin (C-14).