

Anti-Phospho-Ser549 Synapsin I Antibody

Product Data Sheet · P/N 74112 Rev 01 · Reissued 2026-09-19 (layout only)

Product code	Pack size
P40030-100	100 µL
Host Species	Rabbit (Polyclonal)
Mr (kDa)	78

Description

Synapsin I plays a key role in synaptic plasticity in brain (Feng et al., 2002; Nayak et al., 1996). This effect is due in large part to the ability of the synapsins to regulate the availability of synaptic vesicles for release. The role of synapsin in synaptic plasticity and in synaptogenesis is regulated by phosphorylation (Jovanovic et al., 2001; Kao et al., 2002). Ser549 along with Ser62 and Ser67 are the sites of synapsin I that are phosphorylated by MAP kinase (Jovanovic et al., 1996). Phosphorylation and subsequent dephosphorylation of this site is thought to play a key role in synaptic vesicle trafficking.

Immunogen

Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser549 of synapsin I. Specific for ~78k synapsin I doublet protein phosphorylated at Ser549.

Species Reactivity

The antibody has been directly tested for reactivity in Western blots with rat tissue. It is anticipated that the antibody will react with human, mouse, non-human primate, bovine and canine tissues based on the fact that these species have 100% homology with the amino acid sequence used as antigen.

3683.

2) Czernik AJ et al. (1987) Proc Natl Acad Sci (USA) 84:7518-7522.

3) Feng J et al. (2002) J Neurosci 22:4372-4380.

4) Jovanovic JN et al. (2001) J Neurosci 21:7944-7953.

5) Kao HT et al. (2002) Nature Neurosci 5:431-437.

6) Nayak AS et al. (1996) Proc Natl Acad Sci (USA) 93:15451-15456.

Physical State

Liquid; Buffer contents: 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per mL BSA and 50% glycerol WB:

IHC: 1:1000 1:500

Purification Method

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

Storage/Stability

Stable at -20 °C for at least 1 year.

For long term storage -20 °C is recommended

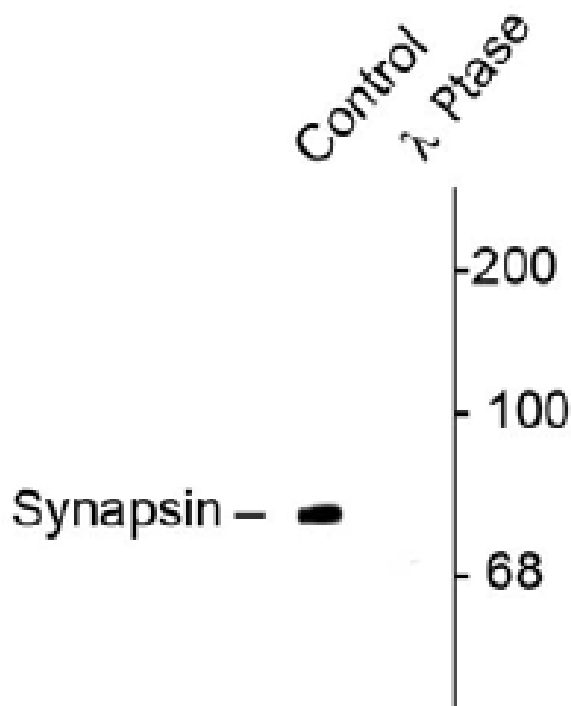
Shipping Conditions

Domestic: Blue Ice

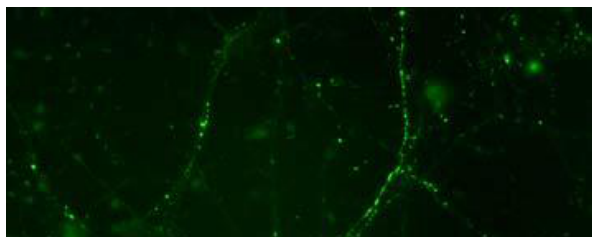
International: Blue Ice or Dry Ice

References

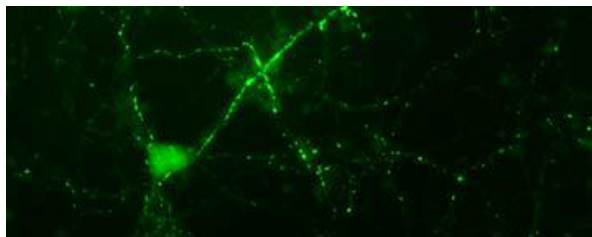
1) Jovanovic JN et al. (1996) Neurobiology 93:3679-



Immunostaining Cultured mouse caudate neurons showing synapsin I when phosphorylated at Ser549. Cells and photo courtesy of QBMCellScience.



Western Blot Rat cortex lysate showing specific immunolabeling of ~78k synapsin I phosphorylated at Ser549 (Control). Immunolabeling is completely eliminated by treatment with λ- Phosphatase, lane 2.



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