

Anti-Phospho-Ser603 Synapsin I Antibody

Product Data Sheet · P/N 74113 Rev 01 · Reissued 2026-09-19 (layout only)

Product code	Pack size
P40031-100	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). Serine603 is the site on synapsin I that is phosphorylated by calcium calmodulin kinase II and by p21-activated kinases (Sakurada et al., 2002; Czernik et al., 1987). Phosphorylation of this site is thought to regulate synaptic vesicle function (Nayak et al., 1996; Bahler and Greengard, 1987; McGuinness et al., 1989).

Immunogen

Phosphopeptide corresponding to amino acid residues surrounding the phospho- Ser603 of synapsin I. Specific for ~78k synapsin I doublet phosphorylated at Ser603.

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 bovine, human, mouse, Xenopus and zebra fish tissue based on the fact that these species have 100% homology with the amino acid sequence used as antigen.

Physical State

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

Purification Method

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

Recommended Antibody Dilutions

WB: 1:1000

Storage/Stability

Stable at -20 °C for at least 1 year.

For long term storage -20 °C is recommended

Shipping Conditions

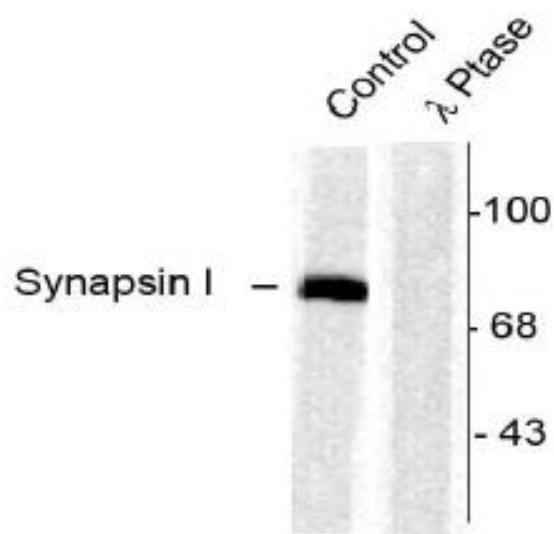
Domestic: Blue Ice

International: Blue Ice or Dry Ice

References

- 1) Bahler M et al. (1987) Nature (London) 326:704-707.
- 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) McGuinness TL et al. (1989) J Neurosci 9:4138-4149.
- 7) Nayak AS et al. (1996) Proc Natl Acad Sci (USA) 93:15451-15456.
- 8) Sakurada K et al. (2002) J Biol Chem 277:45473-45479.



Western Blot Rat cortex lysate showing specific labeling of the ~78k synapsin protein phosphorylated at Ser603 (Control). Immunolabeling is blocked by preadsorption with the phospho-peptide used as antigen (Peptide) but not by the corresponding dephospho- peptide (not shown).

For research use or further manufacturing only. Not for use in diagnostic procedures, or for human or animal consumption.