

PRODUCT DATA SHEET

Product Name: ANTI-PHOSPHO-Ser⁶⁰³ SYNAPSIN I ANTIBODY

Product Code: P40031-100

Pack Size: 100 µL

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).

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

Storage/Stability: Stable at -20 °C for at least 1 year. For long term storage -20 °C is recommended

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

Shipping Conditions: Domestic: Blue Ice
International: Blue Ice or Dry Ice

Host Species: Rabbit (Polyclonal)

Mr (kDa): 78

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.

Recommended Antibody Dilutions:

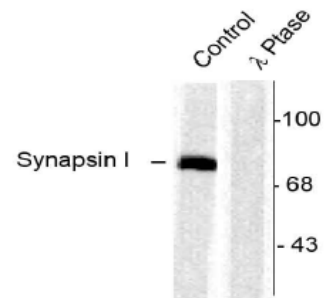
WB: 1:1000

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).



Application Key: WB – Western Blot IF – Immunofluorescence IHC – Immunohistochemistry IP - Immunoprecipitation