10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Synapsin (Ser549) Antibody

Our Anti-Synapsin (Ser549) rabbit polyclonal phosphospecific primary antibody from PhosphoSolutions

Catalog # AN1564

Specification

Anti-Synapsin (Ser549) Antibody - Product Information

Application	**WB**
Primary Accession	P17599
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**74518**

Anti-Synapsin (Ser549) Antibody - Additional Information

Gene ID	**281510**

Other Names
Brain protein 4.1 antibody, SYN 1 antibody, SYN 1a antibody, SYN 1b antibody, SYN I antibody, SYN1 antibody, SYN1_HUMAN antibody, SYN1a antibody, SYN1b antibody, Synapsin 1 antibody, Synapsin I antibody, Synapsin-1 antibody, Synapsin1 antibody, SynapsinI antibody, SYNI antibody

Target/Specificity
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). Ser-549 along with Ser-62 and Ser-67 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.

Dilution
WB~~1:1000

Format
Antigen Affinity Purified from Pooled Serum

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Anti-Synapsin (Ser549) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

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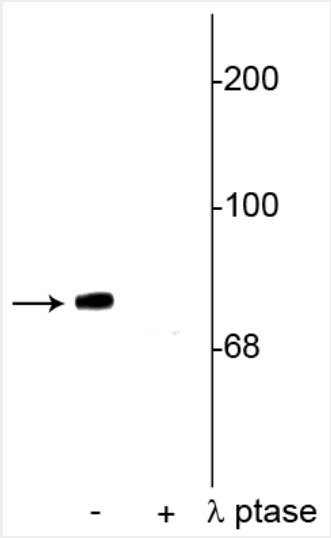
Anti-Synapsin (Ser549) Antibody - Protocols

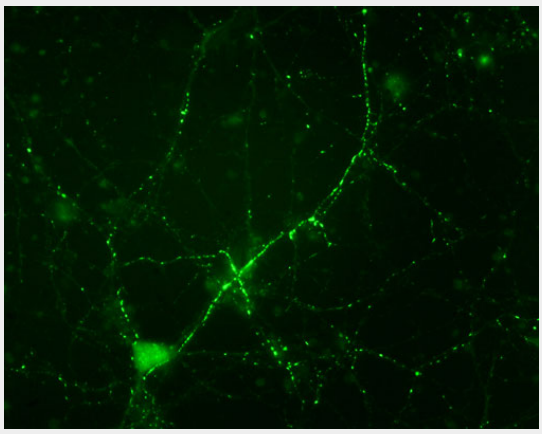
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Synapsin (Ser549) Antibody - Images



Western blot of rat cortical lysate showing specific immunolabeling of the ~78 kDa synapsin I phosphorylated at Ser549 in the first lane (-). Phosphospecificity is shown in the second lane (+) where the immunolabeling is completely eliminated by blot treatment with lambda phosphatase (λ-Ptase, 1200 units for 30 minutes).



Immunostaining of cultured mouse caudate neurons showing synapsin I when phosphorylated at Ser549(cat. p1560-549, green, 1:500). Cells and photo courtesy of QBMCellScience.

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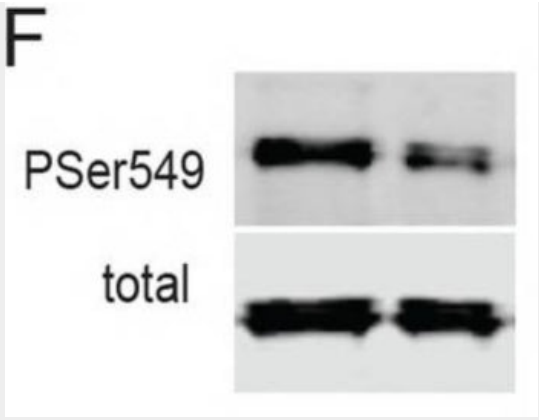

In vivo inhibition of Cdk5 assessed via quantitative immunoblot for P-Ser549 (cat. p1560-549)/total Synapsin I in rat hippocampus after treatment with 50 mg/kg 25–106. Image from publication CC-BY-4.0. PMID: 36854738

Anti-Synapsin (Ser549) Antibody - Background

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). Ser-549 along with Ser-62 and Ser-67 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.