

## Anti-Phospho-Synapsin I (Ser9) Syn1 Antibody

Catalog Number: P03794-3

### About SYN1

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. In addition to its role in plasticity, the expression of synapsin I is a precise indicator of synapse formation (Moore and Bernstein, 1989; Stone et al., 1994). Thus, synapsin I immunocytochemistry provides a valuable tool for the study of synaptogenesis. The role of synapsin in synaptic plasticity and in synaptogenesis is regulated by phosphorylation (Jovanovic et al., 2001; Kao et al., 2002). Serine 9 is the site on synapsin I that is phosphorylated by cAMP-dependent protein kinase and by calcium calmodulin kinase I (Czernik et al., 1987). Phosphorylation of this site is thought to regulate synaptic vesicle function and neurite outgrowth (Kao et al., 2002).

### Overview

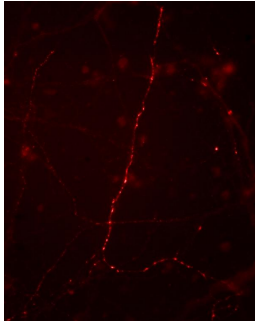
|                      |                                                                                                                                                                                                                    |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-Phospho-Synapsin I (Ser9) Syn1 Antibody                                                                                                                                                                       |
| Reactive Species     | Mouse, Rat, Zebrafish                                                                                                                                                                                              |
| Description          | Boster Bio Anti-Phospho-Synapsin I (Ser9) Syn1 Antibody (Catalog # P03794-3). Tested in WB, ICC applications. This antibody reacts with Mouse, Rat, Zebrafish.                                                     |
| Application          | ICC, WB                                                                                                                                                                                                            |
| Clonality            | Polyclonal 608                                                                                                                                                                                                     |
| Formulation          | 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.                                                                                                                                             |
| Storage Instructions | Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C. After date of receipt, stable for at least 1 year at -20°C. |
| Host                 | Rabbit                                                                                                                                                                                                             |
| Uniprot ID           | P17599                                                                                                                                                                                                             |

### Technical Details

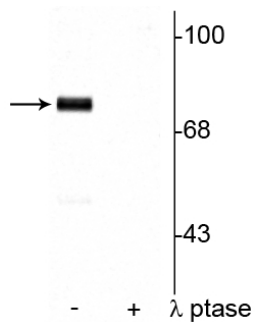
|                            |                                                                                                                                                                           |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                  | Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser9 of rat synapsin, conjugated to keyhole limpet hemocyanin (KLH). Immunogen species is Rat. |
| Predicted Reactive Species | Bovine, Human, Xenopus                                                                                                                                                    |
| Cross Reactivity           | No cross reactivity with other proteins.                                                                                                                                  |
| Isotype                    | IgG                                                                                                                                                                       |
| Form                       | Liquid                                                                                                                                                                    |
| Concentration              | 0.5-1mg/ml, actual concentration vary by lot. Use suggested dilution ratio to decide dilution                                                                             |

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Purification        | Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.                                                                                                                                                                                                                                                                                                    |
| Suggested Dilutions | <p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>WB: 1:1000</p> <p>ICC: 1:500</p> |

## Anti-Phospho-Synapsin I (Ser9) Syn1 Antibody (P03794-3) Images



Cultured mouse caudate neurons showing synapsin I when phosphorylated at Ser<sup>9</sup>.



Western blot of rat cortical lysate showing specific immunolabeling of the ~78 kDa synapsin I phosphorylated at Ser<sup>9</sup> in the first lane (-). Phosphospecificity is shown in the second lane (+) where the immunolabeling is completely eliminated by blot treatment with *lambda* phosphatase (gamma-Ptase, 1200 units for 30 minutes).

## 1 Publications Citing This Product

1. PubMed ID: 26527454, Neurotoxicity induced by zinc oxide nanoparticles: age-related differences and interaction

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