ARG52432
anti-Synapsin 1 phospho (Ser603) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Synapsin 1 phospho (Ser603)
Tested Reactivity	Rat
Predict Reactivity	Hu, Ms, Bov, Xenopus laevis, Zfsh
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Synapsin 1
Species	Rat
Immunogen	KLH-conjugated phosphospecific peptide around Ser603 of Rat Synapsin 1.
Conjugation	Un-conjugated
Alternate Names	SYNI; Brain protein 4.1; Synapsin-1; SYN1a; SYN1b; Synapsin I

Application Instructions

Application table

Application	Dilution
WB	1:1000

Application Note: Specific for ~78k synapsin I doublet protein phosphorylated at Ser603. Immunolabeling of the synapsin I band is blocked by λ-phosphatase treatment.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

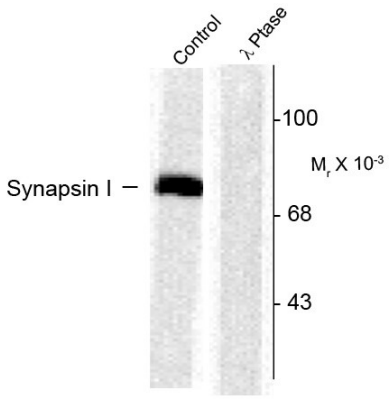
Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 24949 Rat
	Swiss-port # P09951 Rat
Gene Symbol	Syn1
Gene Full Name	synapsin I
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 synaptogensis is regulated by phosphorylation (Jovanovic et al., 2001; Kao et al., 2002). Serine 603 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).
Function	Neuronal phosphoprotein that coats synaptic vesicles, binds to the cytoskeleton, and is believed to function in the regulation of neurotransmitter release. [UniProt]
Research Area	Neuroscience antibody
Calculated Mw	74 kDa
PTM	Substrate of at least four different protein kinases. It is probable that phosphorylation plays a role in the regulation of synapsin-1 in the nerve terminal. Phosphorylation at Ser-9 dissociates synapsins from synaptic vesicles.

Images



ARG52432 anti-Synapsin 1 phospho (Ser603) antibody WB image

Western blot: Rat cortex lysate showing specific immunolabeling of the ~78 kDa Synapsin 1 phosphorylated at Ser603 (Control) stained with ARG52432 anti-Synapsin 1 phospho (Ser603) antibody. The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: λ-Ptase).