

AP05629PU-N**Polyclonal Antibody to Synapsin-1 pSer549 - Purified****Alternate names:**

Brain protein 4.1, SYN1, Synapsin I

Quantity:

0.1 ml

Background:

Synapsin I is a 78 kDa member of the synapsin family, expressed in the central and peripheral nervous system. Synapsins coat synaptic vesicles, binding them to the cytoskeleton and are thought to regulate their availability for release. Synapsins are important in brain plasticity, axonogenesis and synaptogenesis. Mutations in the synapsin I gene may be associated with disorders such as X-linked recessive epilepsy associated with variable learning disabilities and behavior disorders.

Uniprot ID:[P17600](#)**NCBI:**[NP_008881.2](#)**GenelD:**[6853](#)**Host / Isotype:**

Rabbit / IgG

Immunogen:

Phosphopeptide corresponding to amino acid sequence surrounding the phosphorylated Serine 549 of Synapsin I.

Format:

State: Liquid purified IgG fraction
Buffer System: 10mM HEPES, pH7.5
Preservatives: 0.09% Sodium Azide
Stabilizers: 0.01% BSA, 50% Glycerol

Applications:

Western Blot: 1:/000. Detects a band of approximately 78kDa in Rat cortex cell lysates.

Note: For the detection of phosphoproteins, tyrosine phosphatase inhibitors such as 1mM Sodium Orthovanadate should be added to the sample buffer. Milk or other casein-based blocking solutions are not recommended as casein is a phosphoprotein and its use can result in high background.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody recognises synapsin I, phosphorylated at Serine residue 549. Phosphorylation of Serine residue 549 by MAP kinase or cyclin-dependent kinases 1 or 5 is an important part in modulating synaptic vesicle trafficking.

Species Reactivity:

Tested: Rat.

Expected from sequence similarity: Bovine, Canine, Human, Mouse, Primate.

Storage:

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

1. Baldelli P, Fassio A, Corradi A, Cremona O, Valtorta F, Benfenati F. Synapsins and neuroexocytosis: recent views from functional studies on synapsin null mutant mice. Arch Ital Biol. 2005 May;143(2):113-26. PubMed PMID: 16106992.

2. Garcia CC, Blair HJ, Seager M, Coulthard A, Tennant S, Buddles M, et al. Identification of a mutation in synapsin I, a synaptic vesicle protein, in a family with

epilepsy. J Med Genet. 2004 Mar;41(3):183-6. PubMed PMID: 14985377.