**Product Name: Synapsin-1 (phospho Ser553) Rabbit Polyclonal Antibody**
**Catalog #: APRab05504**

## Summary

| | |
|---|---|
| **Production Name** | Synapsin-1 (phospho Ser553) Rabbit Polyclonal Antibody |
| **Description** | Rabbit Polyclonal Antibody |
| **Host** | Rabbit |
| **Application** | ELISA,WB, |
| **Reactivity** | Human,Mouse,Rat |

## Performance

| | |
|---|---|
| **Conjugation** | Unconjugated |
| **Modification** | Phospho Antibody |
| **Isotype** | IgG |
| **Clonality** | Polyclonal |
| **Form** | Liquid |
| **Storage** | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |
| **Buffer** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N. |
| **Purification** | Affinity purification |

## Immunogen

| | |
|---|---|
| **Gene Name** | SYN1 |
| **Alternative Names** | SYN1; Synapsin-1; Brain protein 4.1; Synapsin I |
| **Gene ID** | 6853.0 |
| **SwissProt ID** | P17600.Synthesized phospho-peptide around the phosphorylation site of human Synapsin-1 (phospho Ser553) |

## Application

| | |
|---|---|
| **Dilution Ratio** | WB 1:500-2000 ELISA: 1:5000.. |
| **Molecular Weight** | 75kD |

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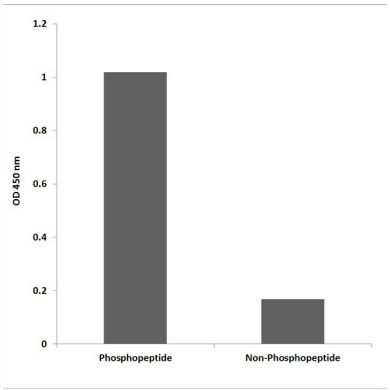
## Background

This gene is a member of the synapsin gene family. Synapsins encode neuronal phosphoproteins which associate with the cytoplasmic surface of synaptic vesicles. Family members are characterized by common protein domains, and they are implicated in synaptogenesis and the modulation of neurotransmitter release, suggesting a potential role in several neuropsychiatric diseases. This member of the synapsin family plays a role in regulation of axonogenesis and synaptogenesis. The protein encoded serves as a substrate for several different protein kinases and phosphorylation may function in the regulation of this protein in the nerve terminal. Mutations in this gene may be associated with X-linked disorders with primary neuronal degeneration such as Rett syndrome. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008],disease:Defects in SYN1 are a cause of epilepsy X-linked with variable learning disabilities and behavior disorders [MIM:300491]. XELBD is characterized by variable combinations of epilepsy, learning difficulties, macrocephaly, and aggressive behavior.,function:Neuronal phosphoprotein that coats synaptic vesicles, binds to the cytoskeleton, and is believed to function in the regulation of neurotransmitter release. The complex formed with NOS1 and CAPON proteins is necessary for specific nitric-oxid functions at a presynaptic level.,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. Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the synapsin family.,subunit:Homodimer. Interacts with CAPON. Forms a ternary complex with NOS1. Isoform Ib interacts with PRNP.,

## Research Area

## Image Data




Enzyme-Linked Immunosorbent Assay （Phospho-ELISA） for Immunogen Phosphopeptide （Phospho-left） and Non-Phosphopeptide （Phospho-right）, using Synapsin I （Phospho-Ser553） Antibody

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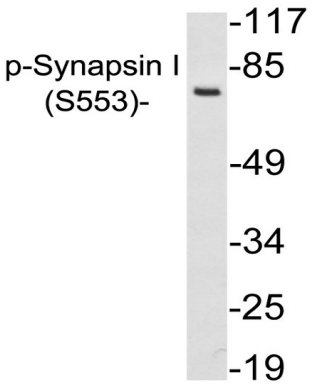
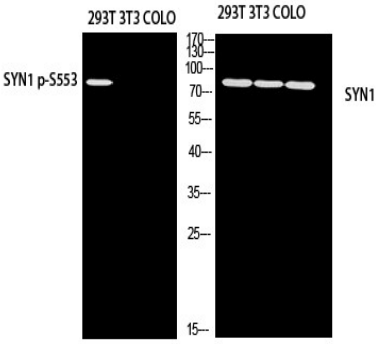



Western blot analysis of lysates from 293 cells treated with PMA, using p-Serynapsin I （Phospho-Ser553） antibody.




Western blot analysis of 293T using SYN1 p-S553 antibody. Antibody was diluted at 1:500

## Note

For research use only.