


## Product datasheet

### Anti-Synapsin I antibody - Synaptic Marker ab64581

★★★★★ [23 Abreviews](#) [97 References](#) [3 Images](#)

#### Overview

<b>Product name</b>	Anti-Synapsin I antibody - Synaptic Marker
<b>Description</b>	Rabbit polyclonal to Synapsin I - Synaptic Marker
<b>Host species</b>	Rabbit
<b>Specificity</b>	Replenishment batches of our polyclonal antibody, ab64581 are tested in WB. Previous batches were additionally validated in IP. This application is still expected to work and is covered by our Abpromise guarantee. You may also be interested in our alternative recombinant antibody, <a href="#">ab254349</a> .
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Goat <b>Predicted to work with:</b> Sheep, Human 
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: PBS</p> <p>Batches of this product that have a concentration &lt; 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.</p>

<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

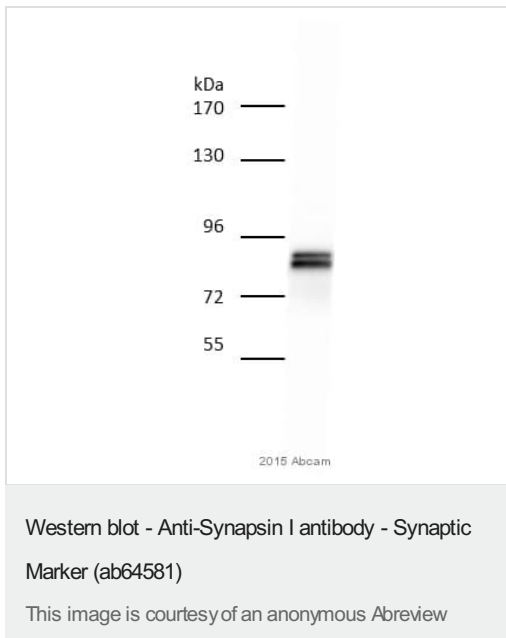
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab64581 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>	★★★★★ (3)	Use a concentration of 1 µg/ml. Detects a band of approximately 74, 70 kDa (predicted molecular weight: 74 kDa). Abcam recommends using 3-5% milk as the blocking agent.
<b>IP</b>		Use at an assay dependent concentration.

## Target

<b>Function</b>	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.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Belongs to the synapsin family.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	Cell junction > synapse. Golgi apparatus.

## Images



Anti-Synapsin I antibody - Synaptic Marker (ab64581) at 1/5000 dilution + Rat whole brain tissue lysate at 15 µg

### Secondary

Donkey anti-Rabbit IgG at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

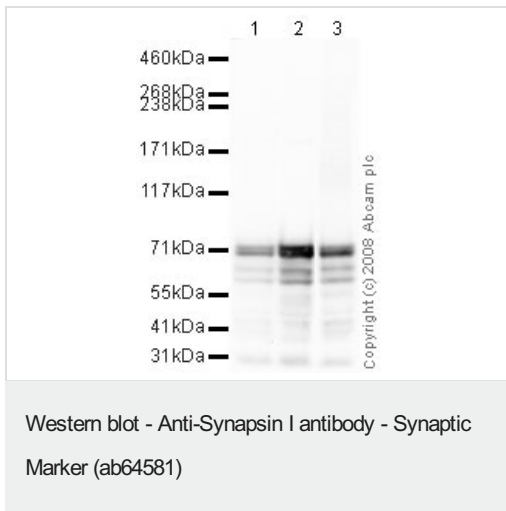
**Predicted band size:** 74 kDa

**Observed band size:** 80,85 kDa

**Exposure time:** 15 seconds

Blocked with 5% milk for 1 hour at 25°C.

Sample was incubated with primary antibody for 18 hours at 4°C in TBS + 0.1% Tween.



**All lanes :** Anti-Synapsin I antibody - Synaptic Marker (ab64581) at 1 µg/ml

**Lane 1 :** Spinal Cord (Mouse) Tissue Lysate

**Lane 2 :** Brain (Mouse) Tissue Lysate

**Lane 3 :** Brain (Rat) Tissue Lysate - normal tissue

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

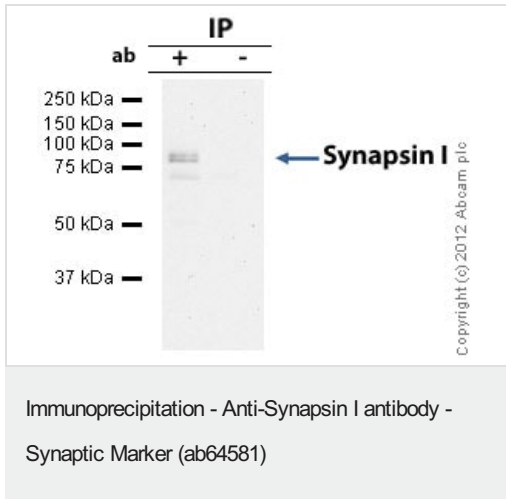
Performed under reducing conditions.

**Predicted band size:** 74 kDa

**Observed band size:** 70,74 kDa

The immunogen for ab64581 is predicted to recognise both the 70 kDa and 74 kDa isoforms of Synapsin I. Synapsin I is also known to contain a number of potential phosphorylation and glycosylation

sites (SwissProt data).



Synapsin I - Synaptic Marker was immunoprecipitated using 0.5mg Mouse Brain whole tissue lysate, 5µg of Rabbit polyclonal to Synapsin I - Synaptic Marker and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, Mouse Brain whole tissue lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70°C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab64581.

Secondary: Goat polyclonal to mouse IgG light chain specific (HRP) at 1/5000 dilution.

Band: 80kDa: Synapsin I - Synaptic Marker contains a number of potential glycosylation sites (SwissProt) which may explain the higher migrating band.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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