

**Anti-Synaptopodin Antibody**  
**Catalog # ABO12748****Specification**

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**Anti-Synaptopodin Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q8N3V7</a>
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Synaptopodin(SYNPO) detection. Tested with WB in Human;Mouse.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Synaptopodin Antibody - Additional Information**

**Gene ID** 11346

**Other Names**

Synaptopodin, SYNPO, KIAA1029

**Calculated MW**

99463 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Mouse<br>

**Subcellular Localization**

Cytoplasm, cytoskeleton . Cell junction, tight junction . Perikaryon . Cell projection, dendritic spine . Cell junction, synapse, postsynaptic cell membrane, postsynaptic density . Cell junction, synapse . Localized at the tight junction of cells. In brain, localized to the postsynaptic densities and in the perikarya. Associated with dendritic spines of a subset of synapses (By similarity). .

**Tissue Specificity**

Expressed in cerebral cortex. .

**Protein Name**

Synaptopodin

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Synaptopodin (629-658aa EKPKVTPNPDLDDLVTQTADEKRRQRDQGEV), different from the related mouse sequence

by one amino acid, and identical to the related rat sequence.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

Belongs to the synaptopodin family.

**Anti-Synaptopodin Antibody - Protein Information**

**Name** SYNPO

**Synonyms** KIAA1029

**Function**

Actin-associated protein that may play a role in modulating actin-based shape and motility of dendritic spines and renal podocyte foot processes. Seems to be essential for the formation of spine apparatuses in spines of telencephalic neurons, which is involved in synaptic plasticity (By similarity).

**Cellular Location**

Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q8CC35}. Cell junction, tight junction {ECO:0000250|UniProtKB:Q8CC35}. Perikaryon {ECO:0000250|UniProtKB:Q8CC35}. Cell projection, dendritic spine {ECO:0000250|UniProtKB:Q8CC35}. Postsynaptic density {ECO:0000250|UniProtKB:Q8CC35}. Synapse {ECO:0000250|UniProtKB:Q8CC35} Cytoplasm, cytosol. Note=Localized at the tight junction of cells. In brain, localized to the postsynaptic densities and in the perikarya. Associated with dendritic spines of a subset of synapses. {ECO:0000250|UniProtKB:Q8CC35}

**Tissue Location**

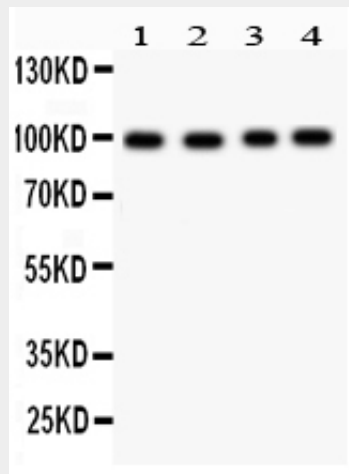
Expressed in cerebral cortex.

**Anti-Synaptopodin Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-Synaptopodin Antibody - Images**



Anti- Synaptopodin antibody, ABO12748, Western blotting All lanes: Anti Synaptopodin (ABO12748) at 0.5ug/ml  
Lane 1: Mosue Brain Tissue Lysate at 50ug  
Lane 2: U87 Whole Cell Lysate at 40ug  
Lane 3: HEPG2 Whole Cell Lysate at 40ug  
Lane 4: 293T Whole Cell Lysate at 40ug  
Predicted bind size: 99KD  
Observed bind size: 99KD

#### **Anti-Synaptopodin Antibody - Background**

Synaptopodin is also known as SYNPO. The spine apparatus (SA) is a specialized form of endoplasmic reticulum (ER) that is found in a subpopulation of dendritic spines in central neurons. The SA consists of a series of stacked discs that are thought to be connected to each other and to the dendritic system of ER-tubules. The actin binding protein synaptopodin (which has originally been described in podocytes of the kidney) is an essential component of the SA. Mice that lack the gene for synaptopodin do not form a spine apparatus. The SA is believed to play a critical role in learning and memory. In summary, an important function of the spine apparatus is the regulation of plasticity at individual synapses, a process known as metaplasticity. The International Radiation Hybrid Mapping Consortium mapped the SYNPO gene to chromosome 5.