

Anti-Synaptopodin Antibody

Catalog # ABO12748

Product Information

Application	WB
Primary Accession	Q8N3V7
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.

Additional Information

Gene ID	11346
Other Names	Synaptopodin, SYNPO, KIAA1029
Calculated MW	99463
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse
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. .
Source	Eukaryota
Protein Name	Synaptopodin
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Synaptopodin (629-658aa EKPKVTPNPDLLVQTAEKRRQRDQGEV), 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 r ° Constitution, 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.

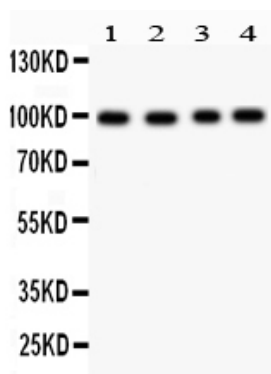
Protein Information

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.

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.

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.