Gephyrin

Selected References SYSY Antibodies

Molecular Dissection of Neuroligin 2 and Slitrk3 Reveals an Essential Framework for GABAergic Synapse Development.

A protocol for concurrent high-quality immunohistochemical and analyses in adult mouse central nervous system.
Notter T, Pansanelli P, Pfister S, Mirzadeh D, Fritschy JM.
The European journal of neuroscience (2014) 39(2): 165-75. IHC, EM

Extrasympathetic homogamic glycine receptors in neurons of the rat trigeminal mesencephalic nucleus.
Bae JY, Lee JS, Ko SJ, Cho YS, Rah JC, Cho HJ, Park MJ, Bae YC.
Brain structure & function (2018) : . IHC, EM; tested species: rat

Electron tomography on y-amino-butyric acid-ergic synapses reveals a discontinuous postsynaptic network of filaments.
Linsalata AE, Chen X, Winters CA, Reese TS.

Glycine receptors expression in rat spinal cord and dorsal root ganglion in prostat gland E2 intrathecal injection models.
Wang HC, Cheng KI, Chen PR, Tseng KY, Kiwan AL, Chang LL.

Excitatory synaptic dysfunction cell-autonomously decreases inhibitory inputs and disrupts structural and functional plasticity.
He HY, Shen W, Zheng L, Guo X, Cline HT.

Subretinal Human Umbilical Tissue-Derived Cell Transplantation Preserves Retinal Synaptic Connectivity and attenuates Müller Glial Reactivity.

 Development of inhibitory synaptic inputs on layer 2/3 pyramidal neurons in the rat medial prefrontal cortex.
Virtanen MA, Lacoh CM, Fiùmelli H, Kessel M, Tygarasan S, de Roo M, Vutskits L.


GABAergic malfunction in the anterior cingulate cortex underlying maternal immune activation-induced social deficits.
Okamoto K, Hitora-Iamurama N, Hobiki H, Iigeya Y.

The Role of Agrin, Lrp4 and MuSK during Dendritic Arborization and Synaptogenesis in Cultured Embryonic CNS Neurons.

Pentraxin 3 regulates synaptic function by inducing AMPA receptor clustering via ECM remodeling and β1-integrin.
The EMBO journal (2018) : . ICC; tested species: mouse

Heparan Sulfate Organizes Neuronal Synapses through Neurexin Partnerships.

In vivo transgenic expression of collybistin in neurons of the rat cerebral cortex.
Bae JY, Lee JS, Ko SJ, Cho YS, Rah JC, Cho HJ, Park MJ, Bae YC.

To BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Gephyrin is a bifunctional protein which is essential for both synaptic clustering of inhibitory neurotransmitter receptors in the central nervous system and the biosynthesis of the molybdenum cofactor (MoCo) in peripheral tissues. It co-purifies with the inhibitory glycine receptor (GlyR) and is expressed abundantly in all brain areas which contain synapses.

Data Sheet

Reconstitution/Storage
300 µl hybridoma supernatant, lyophilized. For reconstitution add 300 µl H2O, then aliquot and store at -20°C until use.

Applications
WB: yes (see remarks)
IP: yes (see remarks)
ICC: 1: 250 up to 1: 500
IHC: yes , frozen and paraffin sections (see remarks)
IHC-P/FFPE: not tested yet
EM: yes

Clone
mAb7a

Subtype
IgG1 (κ light chain)

Immunogen
Recombinant protein corresponding to AA 1 to 768 from rat Gephyrin (UniProt Id: Q03555)

Epitope
Epitope: AA 264 to 276 from rat Gephyrin (UniProt Id: Q03555)

Reactivity
Reacts with: human (Q9NQX3), rat (Q03555), mouse (Q8BUV3), pig, goldfish, zebrafish, frog.

Other species not tested yet.

Specificity
Specific for the brain specific 93 kDa splice variant. (K.O. verified)

Remarks
WB: Clone 3B11 (cat. no. 147 111) highly recommended.
IP: Clone 3B11 (cat. no. 147 111) highly recommended.
IHC: Hybridoma supernatant highly recommended. For best results use the protocol of Schneider Gasser et al., 2006.

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