Human/Mouse Gephyrin/GPHN Alexa Fluor® 350-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 807423

Catalog Number: FAB7519U

100 µg

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human Gephyrin/GPHN in direct ELISAs and human and mouse Gephyrin/GPHN Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 807423
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Gephyrin/GPHN Ala2-Ser188 Accession # Q9NQX3
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Gephyrin (GPHN, from γεφυρα, the Greek word for bridge; also known as molybdopterin adenyltransferase) is a 90-94 kDa member of both the MoaB and MoeA families of proteins. It has limited expression, being found in hepatocytes and neurons. In neurons, gephyrin is a postsynaptic density cytoplasmic protein that interacts with the subunits of glycine and GABA-A receptors. This interaction is mediated by the ability of gephyrin to form hexameric lattices that act as scaffolds that link the subunits of the two inhibitory receptors to the cell's underlying tubulin network. In addition, the gephyrin lattice may also interact with NLG-1 and -2, suggesting a role for gephyrin in the regulation of glutamatergic synapses. Gephyrin is also known to participate in the synthesis of molybdenum cofactor. This cofactor binds molybdenum, making it available to sulfite and aldehyde reductase. Human gephyrin is 736 amino acids (aa) in length. It contains a 181 aa N-terminal G-domain that possesses MPT Mo-transferase activity (aa 14-166) and a homotrimer interface motif, followed by a 420 aa C-terminal region (aa 319-738) that contains an MPT adenyltransferase domain (aa 326-736) with an embedded homodimerization motif. There are at least five utilized Ser/Thr phosphorylation sites. Multiple splice variants exist, and represent peptide insertions at multiple sites. There is a 13 aa insertion after Glu98, a 33 aa insertion after Ser243, and 15, 19, 21 and 24 aa insertions after Lys288. Over aa 2-188, human and mouse Gephyrin are identical in amino acid sequence.

PRODUCT SPECIFIC NOTICES

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