Datasheet for ABIN968898

anti-Gephyrin antibody (AA 569-726)

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Overview

Quantity:	50 µg
Target:	Gephyrin (GPHN)
Binding Specificity:	AA 569-726
Reactivity:	Human, Mouse, Chicken, Blow Fly
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Gephyrin antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Rat Gephyrin aa. 569-726
Clone:	45-Gephyrin
Isotype:	IgG1
Cross-Reactivity:	Human, Mouse (Murine), Chicken, Fruit Fly (Drosophila melanogaster)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Gephyrin (GPHN)
Alternative Name:	Gephyrin (GPHN Products)
Background:	The sub-membraneous region of the postsynaptic neuron is an intricate network of cytoskeletal elements generally known as the postsynaptic density. It is thought that this elaborate cytoskeletal region is critical for receptor targeting, clustering, and efficient signal input. Gephyrin, a 93 kDa protein, was identified as a result of its ability to bind to polymerized tubulin (microtubules). Although expressed in all tissues, gephyrin mRNA is found most abundantly in brain. Alternative splicing produces at least five different mRNAs. Gephyrin colocalizes and interacts with the glycine receptor at the postsynaptic density. It is possible that Gephyrin acts as an anchor between the glycine receptor and microtubules.
Molecular Weight:	93 kDa
Pathways:	Synaptic Membrane, Skeletal Muscle Fiber Development

Application Details

Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:

Meyer, Kirsch, Betz, Langosch: "Identification of a gephyrin binding motif on the glycine receptor beta subunit." in: **Neuron**, Vol. 15, Issue 3, pp. 563-72, (1995) (PubMed).

Prior, Schmitt, Grenningloh, Pribilla, Multhaup, Beyreuther, Maulet, Werner, Langosch, Kirsch: " Primary structure and alternative splice variants of gephyrin, a putative glycine receptor-tubulin linker protein." in: **Neuron**, Vol. 8, Issue 6, pp. 1161-70, (1992) (PubMed).

Images

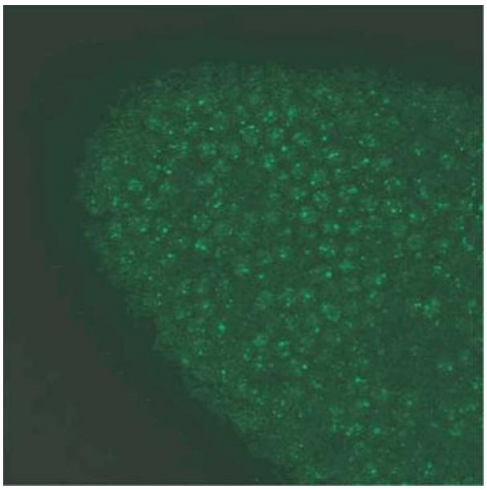
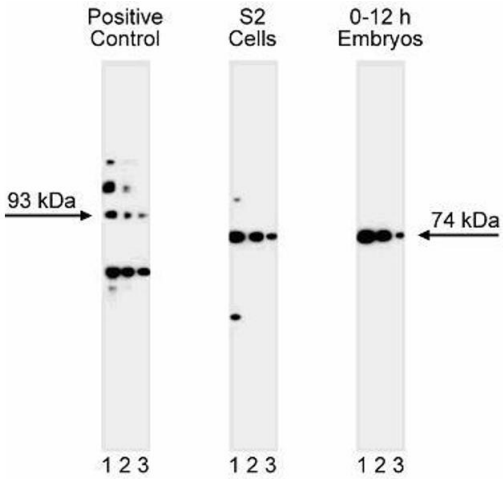


Image 1. High magnification view of A.



Western Blotting

Image 2. Western blot analysis of Gephyrin. Lysates from rat cerebrum (5 µg/lane), S2 cells (7.5 µg/lane), and 0-12 hours Drosophila embryos (7.5 µg/lane) were probed with anti- Gephyrin at concentrations of 4 µg/ml (lane 1), 2 µg/ml (lane 2), and 1 µg/ml (lane 3). Anti-Gephyrin detects a band of 93 kDa in rat cerebrum and 74 kDa in S2 cells and Drosophila embryos.

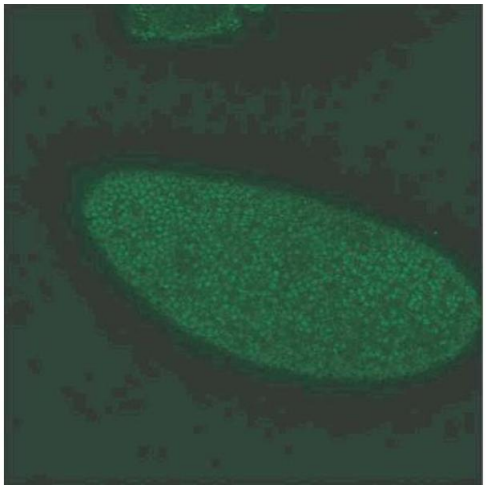


Image 3. Gephyrin immunochemical staining of 0-12 hour embryos. Formalin-fixed embryos kept in ethanol at -20°C, were re-hydrated and incubated with anti-Gephyrin at 1 µgg/ml in TBST. After extensive washes to remove unbound antibody, Gephyrin signal was visualized with ALEXA fluor 488 secondary antibody (1/300) and confocal microscopy. Gephyrin staining is found throughout the cellularizing embryo, and it appears more intense in the nuclei with nuclear dots stained.

