

Gephyrin (R-20): sc-6411

BACKGROUND

The sub-membraneous region at the postsynaptic membrane contains a number of proteins critical for receptor targeting. Gephyrin is a microtubule-associated protein highly expressed in brain and localized to neuronal post-synaptic membranes. Gephyrin is essential for the postsynaptic localization of the inhibitory glycine receptor and is thought to anchor the receptor to subsynaptic microtubules. The protein is expressed in most mammalian tissues with predominant expression in brain. At least five additional splice variants of Gephyrin ranging in molecular weight have been identified in rat and human brain tissue.

CHROMOSOMAL LOCATION

Genetic locus: GPHN (human) mapping to 14q23.3; Gphn (mouse) mapping to 12 C3.

SOURCE

Gephyrin (R-20) is available as either goat (sc-6411) or rabbit (sc-6411-R) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of Gephyrin of rat origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6411 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Gephyrin (R-20) is recommended for detection of Gephyrin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Gephyrin (R-20) is also recommended for detection of Gephyrin in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for Gephyrin siRNA (h): sc-35464, Gephyrin siRNA (m): sc-35465, Gephyrin shRNA Plasmid (h): sc-35464-SH, Gephyrin shRNA Plasmid (m): sc-35465-SH, Gephyrin shRNA (h) Lentiviral Particles: sc-35464-V and Gephyrin shRNA (m) Lentiviral Particles: sc-35465-V.

Molecular Weight of Gephyrin: 93 kDa.

Positive Controls: Gephyrin (m): 293T Lysate: sc-120469, 3611-RF whole cell lysate: sc-2215 or rat brain extract: sc-2392.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

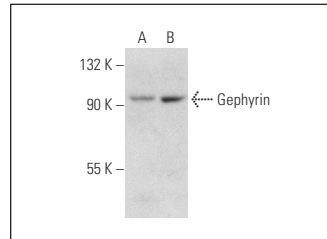
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

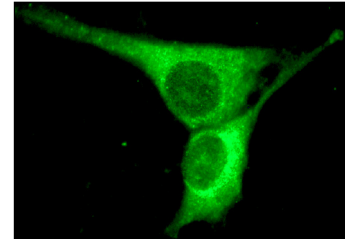
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Gephyrin (R-20): sc-6411. Western blot analysis of Gephyrin expression in non-transfected: sc-117752 (A) and mouse Gephyrin transfected: sc-120469 (B) 293T whole cell lysates.



Gephyrin (R-20): sc-6411. Immunofluorescence staining of methanol-fixed BC₃H1 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Waldvogel, H.J., et al. 2003. Distribution of Gephyrin in the human brain: an immunohistochemical analysis. *Neuroscience* 116: 145-156.
2. Baer, K., et al. 2003. Association of Gephyrin and glycine receptors in the human brainstem and spinal cord: an immunohistochemical analysis. *Neuroscience* 122: 773-784.
3. Thompson-Vest, N.M., et al. 2003. GABA_A receptor subunit and Gephyrin protein changes differ in the globus pallidus in Huntington's diseased brain. *Brain Res.* 994: 265-270.
4. Sertie, A.L., et al. 2010. Collybistin and gephyrin are novel components of the eukaryotic translation initiation factor 3 complex. *BMC Res. Notes* 3: 242.
5. Jensen, K.P. and Covault, J. 2011. Human miR-1271 is a miR-96 paralog with distinct non-conserved brain expression pattern. *Nucleic Acids Res.* 39: 701-711.
6. Yang, J.M., et al. 2013. Development of GABA circuitry of fast-spiking basket interneurons in the medial prefrontal cortex of *erbb4*-mutant mice. *J. Neurosci.* 33: 19724-19733.

MONOS
Satisfaction
Guaranteed

Try **Gephyrin (G-6): sc-25311** or **Gephyrin (B-4): sc-55469**, our highly recommended monoclonal alternatives to Gephyrin (R-20).