**BACKGROUND**

The sub-membranous 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 postsynaptic 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.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**MONOS Satisfaction Guaranteed**

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

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Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com