

Gephyrin (h2): 293T Lysate: sc-170621

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.

REFERENCES

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2. Takagi, T., et al. 1992. Co-expression of the receptor-associated protein Gephyrin changes the ligand binding affinities of $\alpha 2$ Glycine receptors. *FEBS Lett.* 303: 178-180.
3. Kirsch, J., et al. 1993. Distribution of Gephyrin transcripts in the adult and developing rat brain. *Eur. J. Neurosci.* 5: 1109-1117.
4. Meyer, G., et al. 1995. Identification of a Gephyrin binding motif on the Glycine receptor β subunit. *Neuron* 15: 563-572.
5. Vannier, C., et al. 1997. Biology of the postsynaptic Glycine receptor. *Int. Rev. Cytol.* 176: 201-244.
6. Ramming, M., et al. 1997. Analysis of the promoter region of the murine Gephyrin gene. *FEBS Lett.* 405: 137-140.
7. Kawasaki, B.T., et al. 1997. Variants of the receptor/channel clustering molecule Gephyrin in brain: distinct distribution patterns, developmental profiles, and proteolytic cleavage by Calpain. *J. Neurosci. Res.* 49: 381-388.
8. Meier, J., et al. 2004. A Gephyrin-related mechanism restraining Glycine receptor anchoring at GABAergic synapses. *J. Neurosci.* 24: 1398-1405.
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CHROMOSOMAL LOCATION

Genetic locus: GPHN (human) mapping to 14q23.3.

PRODUCT

Gephyrin (h2): 293T Lysate represents a lysate of human Gephyrin transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Gephyrin (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Gephyrin antibodies. Recommended use: 10-20 μ l per lane.

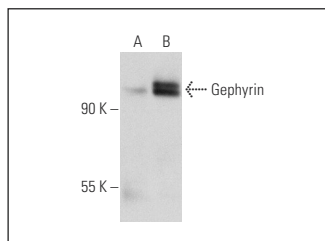
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Gephyrin (G-6): sc-25311 is recommended as a positive control antibody for Western Blot analysis of enhanced human Gephyrin expression in Gephyrin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Gephyrin (G-6): sc-25311. Western blot analysis of Gephyrin expression in non-transfected: sc-117752 (A) and human Gephyrin transfected: sc-170621 (B) 293T whole cell lysates.

RESEARCH USE

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