

dendrin (G-15): sc-167616

BACKGROUND

Synaptic plasticity and memory formation involve remodeling of the postsynaptic cytoskeleton, a process that is in part based on both local translation of dendritic mRNAs and synaptic recruitment of newly synthesized proteins. Dendrin, a 711 amino acid protein, is thought to modulate the structure of the synaptic cytoskeleton by interacting with various proteins, including α -actinin, Maguk with inverted orientation (MAGI) and synaptic scaffolding molecule (S-SCAM). Dendrin is specifically expressed in brain and kidney. In kidney, Dendrin promotes apoptosis of kidney glomerular podocytes, which are highly specialized cells essential to the ultrafiltration of blood, resulting in the extraction of urine and the retention of protein.

REFERENCES

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3. Kawata, A., Iida, J., Ikeda, M., Sato, Y., Mori, H., Kansaku, A., Sumita, K., Fujiwara, N., Rokukawa, C., Hamano, M., Hirabayashi, S. and Hata, Y. 2006. CIN85 is localized at synapses and forms a complex with S-SCAM via dendrin. *J. Biochem.* 139: 931-939.
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5. Asanuma, K., Campbell, K.N., Kim, K., Faul, C. and Mundel, P. 2007. Nuclear relocation of the nephrin and CD2AP-binding protein dendrin promotes apoptosis of podocytes. *Proc. Natl. Acad. Sci. USA* 104: 10134-10139.

CHROMOSOMAL LOCATION

Genetic locus: DDN (human) mapping to 12q13.12; Ddn (mouse) mapping to 15 F1.

SOURCE

dendrin (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of dendrin of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-167616 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

dendrin (G-15) is recommended for detection of dendrin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for dendrin siRNA (h): sc-96231, dendrin siRNA (m): sc-142994, dendrin shRNA Plasmid (h): sc-96231-SH, dendrin shRNA Plasmid (m): sc-142994-SH, dendrin shRNA (h) Lentiviral Particles: sc-96231-V and dendrin shRNA (m) Lentiviral Particles: sc-142994-V.

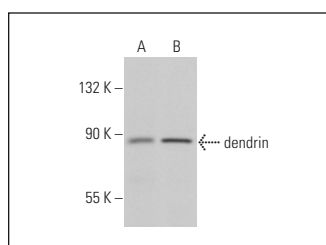
Molecular Weight of dendrin: 81 kDa.

Positive Controls: mouse pancreas extract: sc-364244 or mouse heart extract: sc-2254.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



dendrin (G-15): sc-167616. Western blot analysis of dendrin expression in mouse heart (A) and mouse pancreas (B) tissue extracts.

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.