

densin-180 (R-16): sc-15447

BACKGROUND

Densin-180 is a synaptic transmembrane protein that is tightly associated with the postsynaptic density in CNS neurons and is postulated to function as a synaptic adhesion molecule. Densin-180 is a brain-specific member of the O-sialoglycoprotein family which is highly concentrated at synapses along dendrites. The sequence of densin-180 contains 17 leucine-rich repeats, a sialomucin domain, an apparent transmembrane domain, and a PDZ (PSD-95, Dlg, ZO-1) domain. The PDZ domain contributes to its binding to α -actinin. The intracellular portion of densin-180, CaMKII α , interacts with α -actinin at distinct binding sites and, together, they form a ternary complex stabilized by multiple interactions.

REFERENCES

1. Apperson, M.L., Moon, I.S. and Kennedy, M.B. 1996. Characterization of densin-180, a new brain-specific synaptic protein of the O-sialoglycoprotein family. *J. Neurosci.* 16: 6839-6852.
2. Kennedy, M.B. 1997. The postsynaptic density at glutamatergic synapses. *Trends Neurosci.* 20: 264-268.
3. Kennedy, M.B. 1998. Signal transduction molecules at the glutamatergic postsynaptic membrane. *Brain Res. Brain Res. Rev.* 26: 243-257.
4. Strack, S., Robison, A.J., Bass, M.A. and Colbran, R.J. 2000. Association of calcium/calmodulin-dependent kinase II with developmentally regulated splice variants of the postsynaptic density protein densin-180. *J. Biol. Chem.* 275: 25061-25064.
5. Walikonis, R., Oguni, A., Khorosheva, E., Jeng, C., Asuncion, F. and Kennedy, M. 2001. Densin-180 forms a ternary complex with the α -subunit of Ca²⁺/calmodulin-dependent protein kinase II and α -actinin. *J. Neurosci.* 21: 423-433.

CHROMOSOMAL LOCATION

Genetic locus: LRRC7 (human) mapping to 1p31.1; Lrrc7 (mouse) mapping to 3 H4.

SOURCE

densin-180 (R-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of densin-180 of rat origin.

PRODUCT

Each vial contains 200 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-15447 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.

RESEARCH USE

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

APPLICATIONS

densin-180 (R-16) is recommended for detection of densin-180 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). densin-180 (R-16) is also recommended for detection of densin-180 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for densin-180 siRNA (h): sc-41995, densin-180 siRNA (m): sc-41996, densin-180 shRNA Plasmid (h): sc-41995-SH, densin-180 shRNA Plasmid (m): sc-41996-SH, densin-180 shRNA (h) Lentiviral Particles: sc-41995-V and densin-180 shRNA (m) Lentiviral Particles: sc-41996-V.

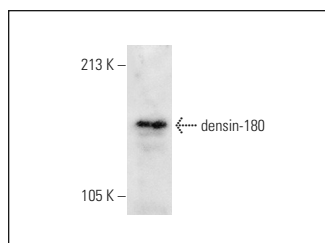
Molecular Weight of densin-180: 180 kDa.

Positive Controls: human bladder extract: sc-363751.

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



densin-180 (R-16): sc-15447. Western blot analysis of densin-180 expression in human bladder tissue extract.

PROTOCOLS

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

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Try **densin-180 (G-1): sc-390153**, our highly recommended monoclonal alternative to densin-180 (R-16).