

striatin (V-20): sc-16857

BACKGROUND

Striatin, SG2NA, and zinedin, the three mammalian members of the striatin family, are multimodular, WD-repeat and calmodulin-binding proteins. Zinedin and SG2NA share with striatin identical protein-protein interaction domains and the same overall domain structure. All three proteins are both cytosolic and membrane-bound and bind calmodulin in the presence of calcium. Striatin is a neuronal, intracellular protein strictly expressed in the somato-dendritic compartment, including spines, subsets of neurons, and is considered as a marker of neuronal polarity. Down-regulation of striatin, which is expressed in a few subsets of neurons, impairs the growth of dendrites as well as rat locomotor activity. Zinedin is mainly expressed in the central nervous system, whereas SG2NA is mainly expressed in the brain and muscle.

REFERENCES

1. Castets, F., et al. 1996. A novel calmodulin-binding protein, belonging to the WD-repeat family, is localized in dendrites of a subset of CNS neurons. *J. Cell Biol.* 134: 1051-1062.
2. Kachidian, P., et al. 1998. Relationships between striatin-containing neurons and cortical or thalamic afferent fibers in the rat striatum: an ultrastructural study by dual labeling. *Neuroscience* 85: 111-122.
3. Salin, P., et al. 1998. Distribution of striatin, a newly identified calmodulin-binding protein in the rat brain: an *in situ* hybridization and immunocytochemical study. *J. Comp. Neurol.* 397: 41-59.
4. Bartoli, M., et al. 1999. Down-regulation of striatin, a neuronal calmodulin-binding protein, impairs rat locomotor activity. *J. Neurobiol.* 40: 234-243.
5. Castets, F., et al. 2000. Zinedin, SG2NA, and striatin are calmodulin-binding, WD repeat proteins principally expressed in the brain. *J. Biol. Chem.* 275: 19970-19977.
6. Baillat, G., et al. 2001. Molecular cloning and characterization of phocein, a protein found from the golgi complex to dendritic spines. *Mol. Biol. Cell* 12: 663-673.
7. Poggeler, S., et al. 2004. A WD40 repeat protein regulates fungal cell differentiation and can be replaced functionally by the mammalian homologue striatin. *Eukaryotic Cell* 3: 232-240.
8. Haeblerle, A.M., et al. 2006. Immunogold localization of phocein in dendritic spines. *J. Comp. Neurol.* 495: 336-350.
9. Gaillard, S., et al. 2006. Targeting of proteins of the striatin family to dendritic spines: role of the coiled-coil domain. *Traffic* 7: 74-84.

CHROMOSOMAL LOCATION

Genetic locus: STRN (human) mapping to 2p22.2; Strn (mouse) mapping to 17 E3.

SOURCE

striatin (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of striatin of human 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-16857 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

striatin (V-20) is recommended for detection of striatin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

striatin (V-20) is also recommended for detection of striatin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for striatin siRNA (h): sc-37649, striatin siRNA (m): sc-37650, striatin shRNA Plasmid (h): sc-37649-SH, striatin shRNA Plasmid (m): sc-37650-SH, striatin shRNA (h) Lentiviral Particles: sc-37649-V and striatin shRNA (m) Lentiviral Particles: sc-37650-V.

Molecular Weight of striatin: 110 kDa.

Positive Controls: A549 cell lysate: sc-2413, SK-N-SH cell lysate: sc-2410 or rat brain extract: sc-2392.

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) 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.

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.

PROTOCOLS

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