

Myopodin (C-13): sc-21542

BACKGROUND

Dendritic spines are dynamic structures that alter their shape and size by remodeling the cytoskeleton in response to changes in synaptic activity. Synaptopodin is a proline-rich, actin-associated protein expressed in mature dendritic spines and renal podocytes. Synaptopodin appears to play a role in the actin-based plasticity of spines by linking actin to the spine apparatus. In the principal neurons of the hippocampus, synaptopodin preferentially localizes to the spine neck. Synaptopodin expression increases during long-term potentiation (LTP) *in vivo* and elevated levels of synaptopodin correlate with the persistence of LTP. In renal podocytes, synaptopodin localizes to the foot processes. Synaptopodin is absent in the sclerosed glomeruli of idiopathic nephrotic syndrome. Myopodin, a member of the synaptopodin family, is expressed in both skeletal and cardiac muscle. Like synaptopodin, Myopodin associates with actin and appears to display actin-bundling activity. Myopodin is frequently absent in invasive prostate cancer and may serve as a prognostic marker for prostate cancers.

REFERENCES

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- Deller, T., et al. 2000. Actin-associated protein synaptopodin in the rat hippocampal formation: localization in the spine neck and close association with the spine apparatus of principal neurons. *J. Comp. Neurol.* 418: 164-181.
- Yamazaki, M., et al. 2001. Regulated expression of an actin-associated protein, synaptopodin, during long-term potentiation. *J. Neurochem.* 79: 192-199.
- Srivastava, T., et al. 2001. Synaptopodin expression in idiopathic nephrotic syndrome of childhood. *Kidney Int.* 59: 118-125.
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CHROMOSOMAL LOCATION

Genetic locus: SYNPO2 (human) mapping to 4q26; Synpo2 (mouse) mapping to 3 G1.

SOURCE

Myopodin (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Myopodin of human origin.

RESEARCH USE

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

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-21542 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Myopodin (C-13) is recommended for detection of Myopodin 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).

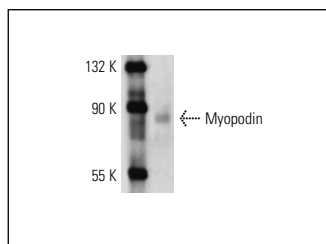
Myopodin (C-13) is also recommended for detection of Myopodin in additional species, including equine and canine.

Suitable for use as control antibody for Myopodin siRNA (h): sc-106270, Myopodin siRNA (m): sc-149757, Myopodin shRNA Plasmid (h): sc-106270-SH, Myopodin shRNA Plasmid (m): sc-149757-SH, Myopodin shRNA (h) Lentiviral Particles: sc-106270-V and Myopodin shRNA (m) Lentiviral Particles: sc-149757-V.

Molecular Weight of Myopodin: 80/95 kDa.

Positive Controls: rabbit skeletal muscle tissue extract.

DATA



Myopodin (C-13): sc-21542. Western blot analysis of Myopodin expression in rabbit skeletal muscle tissue extract.

STORAGE

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

PROTOCOLS

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