

# Myopodin (N-19): sc-21540

## 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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## CHROMOSOMAL LOCATION

Genetic locus: SYNPO2 (human) mapping to 4q26.

## STORAGE

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

## SOURCE

Myopodin (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Myopodin 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-21540 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Myopodin (N-19) is recommended for detection of Myopodin of 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).

Myopodin (N-19) is also recommended for detection of Myopodin in additional species, including equine, canine, bovine, porcine and avian.

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

Molecular Weight of Myopodin: 80/95 kDa.

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.