

# Caprin2 (N-19): sc-107473

## BACKGROUND

Caprin2 (cytoplasmic activation/proliferation-associated protein 2), also known as EEG1, EEG-1, C1QDC1 (C1q domain-containing protein 1) or gastric cancer multidrug resistance-associated protein, is a 1,127 amino acid highly conserved protein that is ubiquitously expressed, with highest levels of expression in brain and spleen. Caprin2 stabilizes cytosolic  $\beta$ -catenin and enhances LEF-1 dependent reporter gene activity as well as the expression of Wnt target genes in mammalian cells. Caprin2 promotes LRP5/6 phosphorylation by GSK-3 and enhances the interaction between Axin and LRP5/6. It is suggested that Caprin2 functions as a proapoptotic inhibitor of the cell cycle. Nine isoforms of Caprin2 exist due to alternative splicing events.

## REFERENCES

1. Aerbajinai, W., et al. 2004. Cloning and characterization of a gene expressed during terminal differentiation that encodes a novel inhibitor of growth. *J. Biol. Chem.* 279: 1916-1921.
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3. Wang, B., et al. 2005. Absence of Caprin1 results in defects in cellular proliferation. *J. Immunol.* 175: 4274-4282.
4. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610375. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Ding, Y., et al. 2008. Caprin2 enhances canonical Wnt signaling through regulating LRP5/6 phosphorylation. *J. Cell Biol.* 182: 865-872.
7. Lorén, C.E., et al. 2009. FGF signals induce Caprin2 expression in the vertebrate lens. *Differentiation* 77: 386-394.
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## CHROMOSOMAL LOCATION

Genetic locus: CAPRIN2 (human) mapping to 12p11.21; Caprin2 (mouse) mapping to 6 G3.

## SOURCE

Caprin2 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Caprin2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107473 P, (100  $\mu$ 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

Caprin2 (N-19) is recommended for detection of Caprin2 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); non cross-reactive with family member Caprin1.

Caprin2 (N-19) is also recommended for detection of Caprin2 in additional species, including canine and porcine.

Suitable for use as control antibody for Caprin2 siRNA (h): sc-95931, Caprin2 siRNA (m): sc-142004, Caprin2 shRNA Plasmid (h): sc-95931-SH, Caprin2 shRNA Plasmid (m): sc-142004-SH, Caprin2 shRNA (h) Lentiviral Particles: sc-95931-V and Caprin2 shRNA (m) Lentiviral Particles: sc-142004-V.

Molecular Weight of Caprin2: 126 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285 or HEL 92.1.7 cell lysate: sc-2270.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> 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.