

# Papilin (N-14): sc-137660

## BACKGROUND

Papilin, also known as PAPLN (papilin, proteoglycan-like sulfated glycoprotein), is a 1,278 amino acid secreted protein that belongs to the Papilin family. Existing as six alternatively spliced isoforms, Papilin consists of a BPTI/Kunitz inhibitor domain, three Ig-like C2-type (immunoglobulin-like) domains, a PLAC domain and five TSP type-1 domains. Essential for embryonic development of *Drosophila melanogaster* and *Caenorhabditis elegans*, Papilin functions as an extracellular matrix glycoprotein that influences cell rearrangements and modulates metalloproteinases during organogenesis. Papilin interacts with several extracellular matrix components and ADAMTS enzymes. Papilin is encoded by a gene located on human chromosome 14q24.2. Chromosome 14 houses over 700 genes and comprises nearly 3.5% of the human genome.

## REFERENCES

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2. Kramerova, I.A., et al. 2000. Papilin in development; a pericellular protein with a homology to the ADAMTS metalloproteinases. *Development* 127: 5475-5485.
3. Kramerova, I.A., et al. 2003. Alternative splicing of papilin and the diversity of *Drosophila* extracellular matrix during embryonic morphogenesis. *Dev. Dyn.* 226: 634-642.
4. Fessler, J.H., et al. 2004. Papilin, a novel component of basement membranes, in relation to ADAMTS metalloproteinases and ECM development. *Int. J. Biochem. Cell Biol.* 36: 1079-1084.
5. Tucker, R.P. 2004. The thrombospondin type 1 repeat superfamily. *Int. J. Biochem. Cell Biol.* 36: 969-974.
6. Kimura, K., et al. 2006. Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. *Genome Res.* 16: 55-65.
7. Kawano, T., et al. 2009. *C. elegans* mig-6 encodes papilin isoforms that affect distinct aspects of DTC migration, and interacts genetically with mig-17 and collagen IV. *Development* 136: 1433-1442.

## CHROMOSOMAL LOCATION

Genetic locus: PAPLN (human) mapping to 14q24.2; Papln (mouse) mapping to 12 D1.

## SOURCE

Papilin (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Papilin 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-137660 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Papilin (N-14) is recommended for detection of Papilin of mouse 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 isoform Papilin-2.

Papilin (N-14) is also recommended for detection of Papilin in additional species, including bovine.

Suitable for use as control antibody for Papilin siRNA (h): sc-92158, Papilin siRNA (m): sc-152016, Papilin shRNA Plasmid (h): sc-92158-SH, Papilin shRNA Plasmid (m): sc-152016-SH, Papilin shRNA (h) Lentiviral Particles: sc-92158-V and Papilin shRNA (m) Lentiviral Particles: sc-152016-V.

Molecular Weight of Papilin isoforms: 138/136/135/119/51/14 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.