

Nidogen (D-20): sc-16001

BACKGROUND

Basement membranes are the earliest extracellular matrices produced during embryogenesis. They are synthesized and incorporated into the supramolecular architecture of several components, including Laminins, Collagen IV, Nidogen and proteoglycans. Nidogen/entactin, a sulfated glycoprotein, acts as a link between the extracellular matrix molecules, Laminin 1 and Collagen Type IV, and thereby participates in the assembly of basement membranes. Nidogen is a highly conserved member of the Nidogen family, which also includes Nidogen-2. Nidogen-2 has a high level of N- and O-glycosylation, and it interacts with Collagens Type I and IV and Perlecan at a comparable level to Nidogen. Nidogen is synthesized and secreted in primary and established mesenchymal peritubular cells and myoepithelial cells, and it affects adhesion of peritubular cells in an autocrine manner. Nidogen is expressed during embryonic and fetal development exclusively in fully developed basement membranes of the ectoderm and is not expressed in the developing endodermal basement membrane or in membranes disrupted during mesoderm formation. Nidogen also cooperates with Laminin 1 to regulate β -casein expression.

REFERENCES

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- Pujuguet, P., Simian, M., Liaw, J., Timpl, R., Werb, Z. and Bissell, M.J. 2000. Nidogen regulates Laminin 1-dependent mammary-specific gene expression. *J. Cell Sci.* 113: 849-858.
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- Konrad, L., Albrecht, M., Renneberg, H., Ullrich, W., Hoeben, E., Verhoeven, G. and Anumuller, G. 2000. Mesenchymal Entactin (Nidogen) is required for adhesion of peritubular cells of the rat testis *in vitro*. *Eur. J. Cell Biol.* 79: 112-120.

CHROMOSOMAL LOCATION

Genetic locus: Nid1 (mouse) mapping to 13 A1.

RESEARCH USE

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

SOURCE

Nidogen (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Nidogen of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-16001 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nidogen (D-20) is recommended for detection of Nidogen of mouse and rat 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).

Suitable for use as control antibody for Nidogen siRNA (m): sc-43177, Nidogen shRNA Plasmid (m): sc-43177-SH and Nidogen shRNA (m) Lentiviral Particles: sc-43177-V.

Molecular Weight of Nidogen: 150 kDa.

Positive Controls: mouse heart extract: sc-2254 or mouse placenta extract: sc-364247.

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.

SELECT PRODUCT CITATIONS

- Dubovy, P., Jancalek, R. and Klusakova, I. 2006. A heterogeneous immunofluorescence staining for Laminin-1 and related basal lamina molecules in the dorsal root ganglia following constriction nerve injury. *Histochem. Cell Biol.* 125: 671-680.

STORAGE

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



Try **Nidogen (C-7): sc-133175** or **Nidogen (331F3): sc-47773**, our highly recommended monoclonal alternatives to Nidogen (D-20).