

# Nidogen-2 (M-300): sc-33143

## BACKGROUND

Nidogens are highly conserved proteins present in vertebrate and invertebrate basement membranes. Nidogens connect the Laminin and Collagen IV networks and integrate other proteins into the membrane. In mammals, two Nidogen proteins, Nidogen-1 and Nidogen-2, interact at comparable levels with Collagen I, IV, and Perlecan, serving to stabilize basement membranes and playing a major role in embryogenesis. The two isoforms have a similar shape, consisting of three globular domains and colocalize in vessel walls and other basement membrane zones. Nidogen-2 is a cell adhesion protein glycosylated at nitrogen and oxygen sites, and is widely distributed in basement membranes in heart, placenta, bone and, to a lesser extent, in pancreas, kidney and skeletal muscle.

## REFERENCES

- Schroen, D.J. and Cheung, H.T. 1996. Interaction of mouse thymocytes and a thymocyte-like cell line with the ECM glycoprotein Entactin. *Cell Immunol.* 167: 141-149.
- Kohfeldt, E., Sasaki, T., Gohring, W. and Timpl, R. 1998. Nidogen-2: a new basement membrane protein with diverse binding properties. *J. Mol. Biol.* 282: 99-109.
- Aumailley, M., Pesch, M., Tunggal, L., Gaill, F. and Fassler, R. 2000. Altered synthesis of Laminin 1 and absence of basement membrane component deposition in Integrin  $\beta$ 1-deficient embryoid bodies. *J. Cell. Sci.* 113: 259-268.
- Miosge, N., Holzhausen, S., Zelent, C., Sprysch, P. and Herken, R. 2001. Nidogen-1 and Nidogen-2 are found in basement membranes during human embryonic development. *Histochem. J.* 33: 523-530.
- Salmivirta, K., Talts, J.F., Olsson, M., Sasaki, T., Timpl, R. and Ekblom, P. 2002. Binding of mouse Nidogen-2 to basement membrane components and cells and its expression in embryonic and adult tissues suggest complementary functions of the two Nidogens. *Exp. Cell Res.* 279: 188-201.
- Schymeinsky, J., Nedbal, S., Miosge, N., Poschl, E., Rao, C., Beier, D.R., Skarnes, W.C., Timpl, R., Bader, B.L. 2002. Gene structure and functional analysis of the mouse Nidogen-2 gene: Nidogen-2 is not essential for basement membrane formation in mice. *Mol. Cell Biol.* 22: 6820-6830.
- SWISS-PROT/TrEMBL (Q14112). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

## SOURCE

Nidogen-2 (M-300) is a rabbit polyclonal antibody raised against amino acids 211-510 mapping within an internal region of Nidogen-2 of mouse origin.

## PRODUCT

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

## STORAGE

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

## APPLICATIONS

Nidogen-2 (M-300) is recommended for detection of Nidogen-2 of mouse and, to a lesser extent, rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

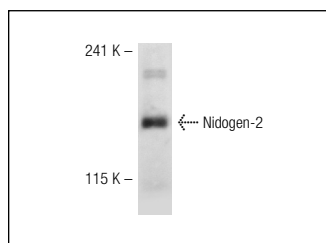
Suitable for use as control antibody for Nidogen-2 siRNA (m): sc-43179, Nidogen-2 shRNA Plasmid (m): sc-43179-SH and Nidogen-2 shRNA (m) Lentiviral Particles: sc-43179-V.

Molecular Weight of Nidogen-2: 200 kDa.

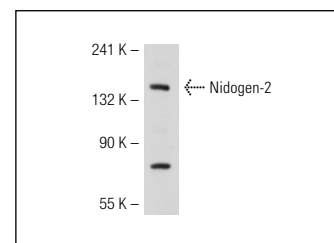
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Nidogen-2 (M-300): sc-33143. Western blot analysis of Nidogen-2 expression in mouse brain tissue extract.



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## 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.



Try **Nidogen-2 (A-7): sc-373859**, our highly recommended monoclonal alternative to Nidogen-2 (M-300).