

Nidogen-2 (A-7): sc-373859

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 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 co-localize 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

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- Aumailley, M., et al. 2000. Altered synthesis of Laminin 1 and absence of basement membrane component deposition in Integrin β 1-deficient embryoid bodies. *J. Cell Sci.* 113: 259-268.
- Pujuguet, P., et al. 2000. Nidogen regulates Laminin 1-dependent mammary-specific gene expression. *J. Cell Sci.* 113: 849-858.
- Miosge, N., et al. 2000. Ultrastructural colocalization of Nidogen-1 and Nidogen-2 with Laminin 1 in murine kidney basement membranes. *Histochem. Cell Biol.* 113: 115-124.
- Murshed, M., et al. 2000. The absence of Nidogen does not affect murine basement membrane formation. *Mol. Cell. Biol.* 20: 7007-7012.
- Konrad, L., et al. 2000. Mesenchymal entactin-1 (Nidogen-1) is required for adhesion of peritubular cells of the rat testis *in vitro*. *Eur. J. Cell Biol.* 79: 112-120.

CHROMOSOMAL LOCATION

Genetic locus: NID2 (human) mapping to 14q22.1; Nid2 (mouse) mapping to 14 A3.

SOURCE

Nidogen-2 (A-7) is a mouse monoclonal antibody raised against amino acids 211-510 mapping within an internal region of Nidogen-2 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgM kappa light chain 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 (A-7) is recommended for detection of Nidogen-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 (h): sc-43178, Nidogen-2 siRNA (m): sc-43179, Nidogen-2 shRNA Plasmid (h): sc-43178-SH, Nidogen-2 shRNA Plasmid (m): sc-43179-SH, Nidogen-2 shRNA (h) Lentiviral Particles: sc-43178-V and Nidogen-2 shRNA (m) Lentiviral Particles: sc-43179-V.

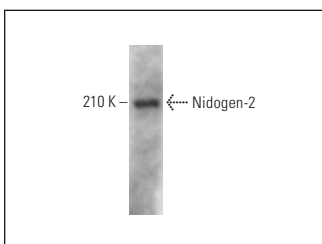
Molecular Weight of Nidogen-2: 200 kDa.

Positive Controls: mouse brain extract: sc-2253 or KNRK whole cell lysate: sc-2214.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Nidogen-2 (A-7): sc-373859. Western blot analysis of Nidogen-2 expression in KNRK whole cell lysate.

SELECT PRODUCT CITATIONS

- Saikia, P., et al. 2018. IL-1 and TGF- β modulation of epithelial basement membrane components Perlecan and Nidogen production by corneal stromal cells. *Invest. Ophthalmol. Vis. Sci.* 59: 5589-5598.
- Gallego-Muñoz, P., et al. 2019. Nidogen-2: location and expression during corneal wound healing. *Exp. Eye Res.* 178: 1-9.

RESEARCH USE

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