Mouse Nidogen-2 Alexa Fluor® 532-conjugated Antibody

Monoclonal Rat IgG_1 Clone # 780611

Catalog Number: FAB6760X

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Nidogen-2 in direct ELISAs. In direct ELISAs, approximately 80% cross-reactivity with recombinant human (rh) Nidogen-2 and no cross-reactivity with rhNidogen-1 is observed.
Source	Monoclonal Rat IgG_1 Clone # 780611
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Nidogen-2 Leu31-Lys1403 Accession # O88322
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Nidogen-2 (also named Entactin-2) is a 160-200 kDa, secreted, monomeric basement membrane glycoprotein (1,2). Nidogens 1 and 2 are expressed in nearly all basement membranes (1-4) where they interact with Laminins, Collagen type IV and proteoglycan family members to form structural scaffolds (5, 6). Mice deleted for both Nidogen genes die at birth due to delayed basement membrane maturation of the lungs and heart (1). However, deletion of one Nidogen gives a mild phenotype, indicating that their functions overlap (1, 7). In adult, muscle Nidogen-2 expression is concentrated in the basal lamina of synapses and is required for their maturation and maintenance (8). Both Nidogens bind Laminin, Perlecan and Collagens I and IV, but only Nidogen-1 binds Fibulins (1, 4). The two Nidogens share approximately 40% amino acid (aa) identity in mouse and are structurally similar (1, 2, 5). Cleavage of a 30 aa signal sequence from mouse Nidogen-2 produces a 1373 aa mature protein containing three globular domains (G1-3) separated by a link region and an extended rod-shaped segment. The G1 domain is reported to bind type IV Collagen, the G2 Nidogen (β-barrel) domain interacts with Perlecan, and the C-terminal G3 β-propeller structure is associated with Laminin binding. The mucin-like link region is longer in Nidogen-2 than Nidogen-1, and contains both N- and O-glycosylation (3, 8). It contains one EGF-like motif, and an RGD motif that binds $\alpha_3\beta_1$ Integrins. The rod-shaped segment contains four additional EGF-like motifs, two of which bind calcium, and two thyroglobulin type 1 domains that serve as a binding site for $\alpha_v\beta_3$ Integrins. If species-specific insertions and deletions are disregarded, mature mouse Nidogen-2 shares 80%, 92%, 74%, 73%, 71% and 68% aa identity with human, rat, bovine, porcine, canine and equine Nidogen-2, respectively.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.

Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475