Mouse Endocan/ESM-1 Alexa Fluor® 488-conjugated Antibody

Monoclonal Rat IgG_{2B} Clone # 220008

Catalog Number: FAB1999G

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Endocan/ESM-1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human Endocan is observed.
Source	Monoclonal Rat IgG_{2B} Clone # 220008
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Endocan/ESM-1 Trp20-Arg184 Accession # Q9QYY7
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.*

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Neutralization	Optimal dilution of this antibody should be experimentally determined.
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

Endocan (endothelial cell proteoglycan), also known as endothelial-cell specific molecule-1 (ESM-1), is a 50 kDa monomeric, secreted, cysteine-rich proteoglycan identified initially in endothelial cells of the kidney and lung (1). Mouse Endocan is synthesized as a 184 amino acid (aa) precursor that contains a 21 aa signal sequence and a 20 kDa, 163 aa mature region (2). The N-terminal 2/3 of the molecule contains 18 cysteine residues and there are no potential N-linked glycosylation sites. Based on human Endocan, there are at least two potential O-linked glycosylation sites, one of which will likely be utilized on Ser at position # 136 of the mature molecule (3). The posttranslational modification is approximately 30 kDa in size. It consists of a single dermatan sulfate chain that contains 4-O sulfated N-acetyl galactosamine with α-iduronate. This chain is suggested to bind HGF and contribute to HGF mitogenic activity (4). Mature mouse Endocan shares 96% and 74% aa identity with rat and human Endocan, respectively. In human, there is a potential for an alternate splice variant. It shows a deletion of aa 82-131, a range which would not remove the dermatan sulfate attachment site (4). It is not known if such a splice form exists in mouse. Endocan is expressed by endothelial cells, adipocytes, bronchial epithelium and distal renal tubular epithelium (1, 5, 6). It is upregulated by TNF-α and VEGF, (1, 7) and is known to bind to LFA-1 (integrin $\alpha_L\beta_2$) on the surface of PBMCs, blocking LFA-1 interaction with ICAM-1 (8). Normal circulating levels of Endocan are approximately 1 ng/mL (6).

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