

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Matrilin-4 in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant human (rh) Matrilin-4 is observed and less than 2% cross-reactivity with recombinant mouse Matrilin-2 and rhM
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Matrilin-4 Gln22-Lys624 Accession # O89029
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

Matrilin-4 is a 73 kDa secreted glycoprotein that is a member of the matrilin family of the von Willebrand Factor-A (vWA) domain-containing superfamily (1). Matrilins are modular extracellular matrix proteins that serve as adaptors and linkers for other matrix proteins. Matrilin-4, like Matrilin-2, has a broad distribution in both cartilage and in loose connective tissue such as dermis, lung and kidney, while Matrilins 1 and 3 are limited to cartilage. Matrilin-4 is present in nervous tissue and is abundant in the brain (2, 3). Mature mouse Matrilin-4 shares 98%, 90%, 89% and 66% amino acid (aa) identity with rat, human, canine and chicken Matrilin-4, respectively. The 624 aa mouse Matrilin-4 contains a 22 aa signal sequence, two potential glycosylation sites, and four cysteine-rich EGF-like domains placed between two vWA domains. A short isoform lacks the N-terminal vWA domain (aa 28-217). A C-terminal α -helix/coiled-coil region (aa 590-623) by which multimers are formed is often proteolytically removed so that Matrilin-4 is found as a mixture of monomers with homo- or hetero- dimers and trimers. Matrilin-4 forms multimers with Matrilins 1 and 2 but not with Matrilin-3 (3, 4). The N-terminal vWA domains of Matrilins associate with collagen IV microfibrils via the proteoglycans biglycan and decorin, linking the fibrils with other matrix constituents aggrecan and collagen II (5, 6). Matrilins also show calcium-dependent binding to the cartilage oligomeric matrix protein (COMP); this interaction is of high affinity for oligomeric Matrilin-4 and somewhat lower affinity for monomeric Matrilin-4 (6). Functions and distributions of Matrilins overlap enough so that knockouts of Matrilins 1, 2 and 3 lack obvious phenotypes (1).

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.