Mouse Matrilin-4 Alexa Fluor® 532-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF3380X
100 µg

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

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