

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Matrilin-2 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Matrilin-2 short isoform Arg24-Arg937 Accession # AAH10444
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.
Immunocytochemistry	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-2 is an extracellular matrix protein that belongs to the superfamily of von Willebrand factor A (VWA) containing proteins. It is expressed in many tissues and functions as a bridging component between other matrix proteins (1-4). The human Matrilin-2 cDNA encodes a 956 amino acid (aa) precursor with a 23 aa signal sequence, two VWA domains separated by ten tandem EGF-like repeats, and a C-terminal coiled-coil domain (5, 6). Alternate splicing generates Isoform 2 (with an 18 aa deletion near the C-terminus), Isoform 3 (with a deletion of the fourth EGF-like repeat), and Isoform 4 (with a deletion of the first VWA and first EGF-like repeat). Human Matrilin-2 shares 87% and 84% aa sequence identity with mouse and canine Matrilin-2, respectively, and 27%, 22%, and 33% aa sequence identity with human Matrilin-1, -3, and -4, respectively. Matrilin-2 forms a variety of disulfide-linked oligomers via its coiled-coil domain (4, 7, 8, 9). It can assemble into homotrimers or heterotrimers with Matrilin-1 and/or Matrilin-4 (4, 7, 8) but has not been detected in heterotrimers containing Matrilin-3 (8). The VWA domains are thought to mediate Matrilin-Matrilin interactions as well as interactions with other matrix proteins such as Fibronectin, Collagen I, Fibrillin-2, and Laminin-1/Nidogen-1 complexes (7). Matrilin-2 knockout mice do not display any obvious abnormalities, suggesting that the expression of other molecules can compensate for the lack of Matrilin-2 (10).

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