**DESCRIPTION**

**Species Reactivity** Human

**Specificity** Detects human Matrilin-2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 60% cross-reactivity with recombinant mouse (rm) Matrilin-2 is observed and approximately 15% cross-reactivity with rmMatrilin-3 and recombinant human Matrilin-4 is observed.

**Source** Polyclonal Goat IgG

**Purification** Antigen Affinity-purified

**Immunogen** Mouse myeloma cell line NS0-derived recombinant human Matrilin-2 short isoform

**Accession #** AAH10444

**Formulation** Lyophilized from a 0.2 μg/mL filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

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**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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Sample</th>
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</thead>
<tbody>
<tr>
<td>Western Blot</td>
<td>Recombinant Human Matrilin-2 (Catalog # 3044-MN)</td>
</tr>
<tr>
<td>Immunocytochemistry</td>
<td>Immersion fixed WS-1 human fetal skin skin fibroblast cell line</td>
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</tbody>
</table>

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**PREPARATION AND STORAGE**

**Reconstitution** Reconstitute at 0.2 mg/mL in sterile PBS.

**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C.

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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**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).

**References:**