Human Matrilin-2 Antibody
Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF3044

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
Formulation Lyophilized from a 0.2 µm 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.

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.

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<th>Applications</th>
<th>Recommended Concentration</th>
<th>Sample</th>
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<td>Western Blot</td>
<td>0.1 µg/mL</td>
<td>Recombinant Human Matrilin-2 (Catalog # 3044-MN)</td>
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<tr>
<td>Immunocytochemistry</td>
<td>5-15 µg/mL</td>
<td>Immersion fixed U2OS human osteosarcoma cell line</td>
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DATA
Immunocytochemistry
Matrilin-2 in U2OS Human Cell Line. Matrilin-2 was detected in immersion fixed U2OS human osteosarcoma cell line using Goat Anti-Human Matrilin-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3044) at 5 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. Staining was performed using our protocol for Fluorescent ICC Staining of Non-adherent Cells.

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: