

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse Lumican in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant human Lumican is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse Lumican Gln19-Asn338, predicted Accession # P51885
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

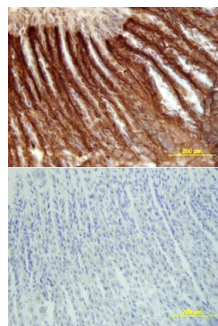
## APPLICATIONS

**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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse Lumican (Catalog # 2745-LU)
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

## DATA

### Immunohistochemistry



**Lumican in Mouse Intestine.** Lumican was detected in perfusion fixed frozen sections of mouse intestine using Goat Anti-Mouse Lumican Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2745) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

Lumican is a 40 kDa member of the family of small leucine-rich repeat proteoglycans (SLRPs) and the class II subfamily (1). Mouse Lumican is synthesized as a 338 amino acid (aa) precursor that contains an 18 aa signal sequence and a 320 aa mature chain (SwissProt #: 51885). The mature chain contains a negatively charged N-terminal domain containing sulfated tyrosine and disulfide bonds, 12 leucine-rich repeats (LRRs), four potential sites of N-linked glycosylation, and a carboxyl terminal domain containing two conserved cysteines (1). Mature mouse Lumican is 98%, 88%, and 70% aa identical to mature rat, human, and chick Lumican, respectively. SLRPs constitute an important fraction of noncollagenous extracellular matrix proteins (ECM) proteins (1-2). Lumican is expressed in a variety of tissues, including skin, artery, lung, cornea, kidney, bone, aorta, and articular cartilage (1). Lumican's role *in vivo* has been found using Lumican null mice. These mice have functional deficits including corneal opacity as well as skin and tendon fragility associated with disorganized and loosely packed collagen fibers (1, 3-6). The abnormal connective tissue phenotype seen in the Lumican null mice shows the importance of the role of Lumican in collagen fibrillogenesis (1). In addition to the control of collagen fibril assembly, Lumican has been shown to play a role in the regulation of cell proliferation (7-8), migration (8-9), and adhesion (9). Lumican's overexpression has been reported in carcinoid tumor, breast, colorectal, neuroendocrine, uterine cervical, and pancreatic cancers (10).

**References:**

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