

### Human Lumican ELISA Kit ab213809

1 Image

#### Overview

**Product name** Human Lumican ELISA Kit

**Detection method** Colorimetric

#### Precision

Intra-assay

Sample	n	Mean	SD	CV%
1	16	249pg/ml	23.03	= 6.6%
2	16	1777pg/ml	103.06	= 5.8%
3	16	5103pg/ml	372.51	= 7.3%

Inter-assay

Sample	n	Mean	SD	CV%
1	24	367pg/ml	24.58	= 6.7%
2	24	1619pg/ml	119.8	= 7.4%
3	24	4802pg/ml	403.36	= 8.4%

**Sample type** Cell culture supernatant, Serum, Hep Plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** < 10 pg/ml

**Range** 156 pg/ml - 10000 pg/ml

**Assay time** 3h 30m

**Assay duration** Multiple steps standard assay

**Species reactivity** **Reacts with:** Human

**Product overview** The Human Lumican Enzyme-Linked Immunosorbent Assay (ELISA) kit (ab213809) is designed for the quantitative detection of Human Lumican in cell culture supernatants, serum and plasma (heparin).

The ELISA kit is based on standard sandwich enzyme-linked immunosorbent assay technology. A

polyclonal antibody from goat specific for Lumican has been pre-coated onto 96-well plates. Standards (Expression system for standard: NSO; Immunogen sequence: Q19-N338) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Lumican is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Human Lumican amount of sample captured in plate.

**Notes** Lumican, also known as LUM, is a protein which in humans is encoded by the LUM gene. This gene is a member of the small interstitial proteoglycan gene (SIPG) family, and it is a keratan sulfate proteoglycan which presents large quantities in the corneal stroma and in interstitial collagenous matrices of the heart, aorta, skeletal muscle, skin and intervertebral discs. Lumican is mapped to 12q21.33. It interacts with collagen and limits growth of fibrils in diameter. In the cornea, Lumican not only interacts with collagen molecules to limit fibril growth, but also plays a critical role in the regular spacing of fibrils and acquisition of corneal transparency by virtue of its keratan sulfate-containing glycosaminoglycan side chains LDC.

**Platform** Pre-coated microplate (12 x 8 well strips)

**Properties**

**Storage instructions** Store at -20°C. Please refer to protocols.

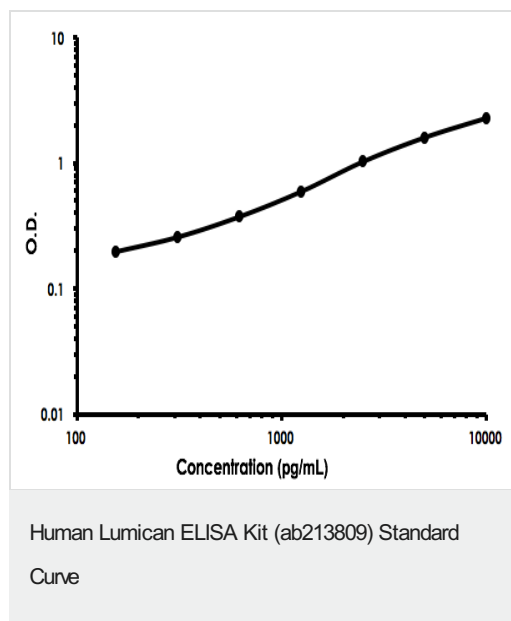
Components	Identifier	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml
Adhesive Plate Seal		4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml
Anti-Human Lumican coated Microplate (12 x 8 wells)		1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl
Biotinylated anti-Human Lumican antibody		1 x 100µl
Lyophilized recombinant Human Lumican standard		2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml
Wash Buffer (25X)		1 x 20ml

**Tissue specificity** Cornea and other tissues.

**Sequence similarities** Belongs to the small leucine-rich proteoglycan (SLRP) family. SLRP class II subfamily. Contains 11 LRR (leucine-rich) repeats. Contains 1 LRRNT domain.

<b>Developmental stage</b>	Present in the extracellular matrix of human articular cartilage at all ages, although its abundance is far greater in the adult. In the adult cartilage lumican exists predominantly in a glycoprotein form lacking keratan sulfate, whereas the juvenile form of the molecule is a proteoglycan.
<b>Post-translational modifications</b>	Sulfated on tyrosine residue(s).
<b>Cellular localization</b>	Secreted > extracellular space > extracellular matrix.

## Images



Human Lumican ELISA Kit (ab213809) Standard Curve

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