

Datasheet for ABIN1889401
LUM ELISA Kit[Go to Product page](#)

1 Image

Overview

Quantity:	96 tests
Target:	LUM
Binding Specificity:	AA 19-338
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10.000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human Lumican
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: Q19-N338
Specificity:	Expression system for standard: NSO Immunogen sequence: Q19-N338
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target:	LUM
Alternative Name:	LUM (LUM Products)
Background:	<p>Background: 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.</p> <p>Synonyms: Lumican,Keratan sulfate proteoglycan lumican,KSPG lumican,LUM,LDC, SLRR2D,</p> <p>Full Gene Name: Lumican</p> <p>Cellular Localisation: Secreted, extracellular space, extracellular matrix.</p>
Gene ID:	4060
UniProt:	P51884
Pathways:	Glycosaminoglycan Metabolic Process

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	<p>Sequence similarities: Belongs to the small leucine-rich proteoglycan (SLRP) family. SLRP class II subfamily.</p> <p>Tissue Specificity: Cornea and other tissues.</p>
Plate:	Pre-coated
Protocol:	human Lumican ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent

Application Details

assay technology. A monoclonal antibody from mouse specific for Lumican has been precoated onto 96-well plates. Standards(NSO, 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.

Assay Procedure: Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human Lumican standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Lumican standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 1433, Standard deviation: 80.25, CV(%): 5.6
- Sample 2: n=16, Mean(pg/ml): 4327, Standard deviation: 268.3, CV(%): 6.2
- Sample 3: n=16, Mean(pg/ml): 6957, Standard deviation: 313.1, CV(%): 4.5,
- Sample 1: n=24, Mean(pg/ml): 1724, Standard deviation: 115.5, CV(%): 6.7
- Sample 2: n=24, Mean(pg/ml): 4683, Standard deviation: 332.5, CV(%): 7.1
- Sample 3: n=24, Mean(pg/ml): 7234, Standard deviation: 419.6, CV(%): 5.8

Restrictions: For Research Use only

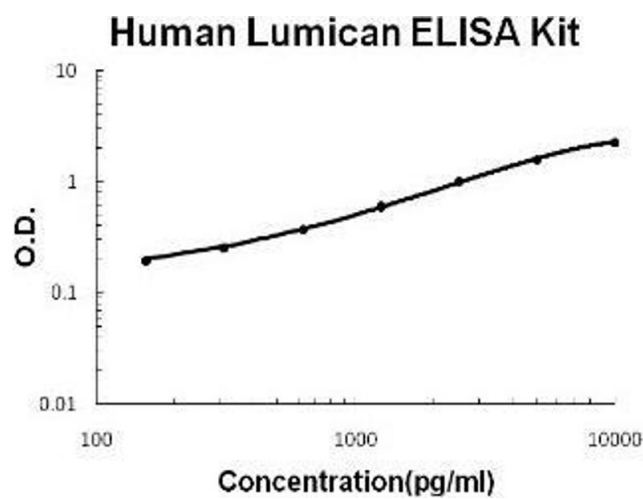
Handling

Handling Advice: Avoid multiple freeze-thaw cycles.

Storage: -20 °C, 4 °C

Storage Comment: Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles

Expiry Date: 12 months



ELISA

Image 1. Human Lumican PicoKine ELISA Kit standard curve