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**Product Data Sheet**


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Product Name: LUM Human, sf9

Cat. No.: GP23847

Batch No.: 1

**Product Data**

Purity	>98%	Source	Sf9, Baculovirus cells.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Lumican; LDC; Lumican Proteoglycan; Keratan Sulfate Proteoglycan Lumican; SLRR2D; KSPG Lumican.		
Amino Acid Sequence	ADLQYYDYDF PLSIYGQSSP NCAPECNCPE SYPSAMYCDE LKLKSVPMVP PGIKYLYLRN NQIDHIDEKA FENVTDLQWL ILDHNLLENS KIKGRVFSKL KQLKKLHINH NNLTESVGPL PKSLEDLQLT HNKITKLGsf EGLVNLTFIH LQHNRLKEDA VSAAFKGLKS LEYLDLSFNQ IARLPSGLPV SLLTLYLDNN KISNIPDEYF KRFNALQYLR LSHNELADSG IPGNSFNVSS LVELDLSYNK LKNIPTVNEN LENYYLEVNQ LEKFDIKSFC KILGPLSYSK IKHLRLDGNR ISETSLPPDM YECLRVANEV TLNHHHHHHH		
Formulation	LUM protein solution (0.5mg/ml) contains Phosphate buffered saline (pH7.4) and 10% glycerol.		

**Introduction**

Lumican also known as LUM belongs to the small leucine-rich proteoglycan (SLRP) family which comprises decorin, biglycan, fibromodulin, keratocan, epiphygan, and osteoglycin. Furthermore we can see that in these bifunctional molecules, the protein moiety binds collagen fibrils and the highly charged hydrophilic glycosaminoglycans regulate interfibrillar spacings. Lumican is the main keratan sulfate proteoglycan of the cornea however LUM is also distributed in interstitial collagenous matrices throughout the body. Lumican regulates collagen fibril organization and circumferential growth, corneal transparency, epithelial cell migration and tissue repair. Among the diseases associated with LUM is posterior amorphous corneal dystrophy.

**Stability**

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

**Caution: Product has not been fully validated for medical applications. For research use only.**

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

LUM Human Recombinant produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 329 amino acids (19-338 aa) and having a molecular mass of 37.7kDa (Migrates at 40-57kDa on SDS-PAGE under reducing conditions). LUM is expressed with a 6 amino acid His tag at C-Terminus and purified by proprietary chromatographic techniques.

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