



**LD Biopharma, Inc.**  
9924 Mesa Rim Road Suite B  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human LGALS7 Protein  
**Catalog Number:** hRP-1153  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

The galectins are a family of b-galactoside-binding proteins implicated in modulating cell-cell and cell-matrix interactions. Differential and in situ hybridization studies indicate that human Galectin-7 (LGALS7) is specifically expressed in keratinocytes and found mainly in stratified squamous epithelium. Recent data indicated that LGALS7 is mainly involved in cell-cell and/or cell-matrix interactions necessary for normal growth control. Pro-apoptotic protein that functions intracellularly upstream of JNK activation and cytochrome c release.

Full-length mature form of human LGALS7 cDNA (2 – 136 aa, derived from BC061588) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

**Gene Symbol:** LGALS7 (GAL7; LGALS7A)  
**Accession Number:** NP\_002298  
**Species:** Human  
**Size:** 50 µg / Vial  
**Composition:** 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Takagi,D., et al., *Galectin-7 as a marker of cholesteatoma residue and its detection during surgery by an immunofluorescent method--a preliminary study.* Otol. Neurotol. 33 (3), 396-399 (2012)



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Lee,J.S., et al., *EC-SOD induces apoptosis through COX-2 and galectin-7 in the epidermis*. J. Dermatol. Sci. 65 (2), 126-133 (2012)

Masuyer,G., et al., *Inhibition mechanism of human galectin-7 by a novel galactose-benzylphosphate inhibitor*. FEBS J. 279 (2), 193-202 (2012)

Rondanino,C., et al., *Galectin-7 modulates the length of the primary cilia and wound repair in polarized kidney epithelial cells*. Am. J. Physiol. Renal Physiol. 301 (3), F622-F633 (2011)

## **Applications**

1. May be used for in vitro mediated pro-apoptosis pathway regulation study with this protein as either coating matrix protein or soluble factor.
2. May be used as LGALS7 protein-protein interaction assay.
3. As enzymatic substrate for various proteases.
4. Potential cancer biomarker protein for diagnostic and therapeutic development.
5. As antigen for specific antibody production.

## **Quality Control**

Purity: > 90% by SDS-PAGE.

## **Recombinant Protein Sequence**

MASMTGGQQMGRGHHHHHGNLYFQGGF SNVPHKSSLPEGIRPGTVLRI RGLVPPNASRFHVN  
LLCGEEQGS DAALHFNPRLDTSEVVFN SKEQGSWGREERGPGVPFQ RGPFEVLI IASDDGFKA  
VVGDAQYHHFRHRLPLARVRLVEVGGDVQLDSVRIF