



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

**Name of Product:** Recombinant Human LRG1 Protein  
**Catalog Number:** hRP-1192  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

The leucine-rich repeat (LRR) family of proteins, including LRG1, have been shown to be involved in protein-protein interaction, signal transduction, and cell adhesion and development. LRG1 is expressed during granulocyte differentiation. Recent data indicated that monitoring LRG1 level in blood sample is a sensitive method for various cancer diagnostic applications.

Full-length mature form of human LRG1 cDNA (36 – 347 aa, derived from BC034389) 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:** LRG1 (HMFT1766; LRG)  
**Accession Number:** NP\_443204.1  
**Species:** Human  
**Size:** 50 µg / Vial  
**Composition:** 1.0 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

Serada,S., et al., *Serum leucine-rich alpha-2 glycoprotein is a disease activity biomarker in ulcerative colitis*. Inflamm. Bowel Dis. 18 (11), 2169-2179 (2012)



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Ladd,J.J., et al., *Increased plasma levels of the APC-interacting protein MAPRE1, LRG1, and IGFBP2 preceding a diagnosis of colorectal cancer in women.* Cancer Prev Res (Phila) 5 (4), 655-664 (2012)

Liu,Y., et al., *Integrative proteomics and tissue microarray profiling indicate the association between overexpressed serum proteins and non-small cell lung cancer.* PLoS ONE 7 (12), E51748 (2012)

## **Applications**

1. May be used for in vitro LRG1 protein mediated cell adhesion pathway regulation study for various cancer cell growth controlling with this protein as either coating matrix protein or soluble factor.
2. May be used as LRG1 protein-protein interaction assay.
3. As enzymatic substrate for various proteases.
4. Potential biomarker protein for various cancer diseases.
5. As antigen for specific antibody production.

## **Quality Control**

Purity: > 90% by SDS-PAGE.

## **Recombinant Protein Sequence**

MASMTGGQQMGRGHHHHHENLYFQGGEFVTLSPKDCQVFRSDHGSSISCQPPAEIPGYLPADT  
VHLAVEFFNLTHLPANLLQGASKLQELHLSSNGLESLSPEFLRPVPQLRVLDLTRNALTGLPPG  
LFQASATLDTLVLKENQLEVLEVSWLHGLKALGHLDLSGNRLRKLPPGLLANFTLLRTLDLGEN  
QLETLPDILLRGPLQLERLHLEGNKLVLGKDLLLPQDLRYLFLNGNKLARVAAGAFQGLRQL  
DMLDLSNNSLASVPEGLWASLGQPNWDMRDGFDISGNPWICDQNLSDLYRWLQAQKDKMFSQND  
TRCAGPEAVKGQTLAVAKSQ