



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

**Name of Product:** Recombinant Human Hex-11R Protein  
**Catalog Number:** hTF-0071  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human Hematopoietically expressed homeobox (**Hex**) encodes a member of the homeobox family of transcription factors, many of which are involved in developmental processes. Expression in specific hematopoietic lineages suggests that this protein may play a role in hematopoietic differentiation.

Recombinant human Hex protein was constructed with C-terminal tag of 11 arginine domain, which efficiently delivery protein intracellularly. This protein was expressed in *E. coli* as inclusion bodies, refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified. Incubating this protein in culture mediums at concentration of 2-8 µg/ml may be used for studying of human HSC cell differentiation.

**Gene Symbol:** HEX (HMPH; HOX11L-PEN; PRH; PRHX)  
**Accession Number:** NP\_002720  
**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 -20°C for long term storage. Product is stable at 4 °C for at least 7 days.

### Key References

Manfioletti,G., et al. *Differential expression of a novel proline-rich homeobox gene (Prh) in human hematolymphopoietic cells.* Blood 85 (5), 1237-1245 (1995)

Hongyan Zhou, et al. *Generation of induced pluripotent stem cells using recombinant protein.* Cell Stem Cell. Vol 4. Issue 5: 381-384 (2009)



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## Applications

1. Protein transduction for human HSC cell differentiation.
2. Active recombinant protein, may be used for ELISA based DNA/Protein binding assay.
3. As specific protein substrate for kinase assay.
4. Immunogen for specific antibody production.

## Quality Control

1. Purity: > 90% by SDS-PAGE.
2. DNA binding assay: Not tested yet.

## Recombinant Protein Sequence

29aa\_Tag\_QYPHPGPAAGAVGVPLYAPTPLLQPAHPTPFYIEDILGRGPAAPTPAPTLPSPNS  
SFTSLVSPYRTPVYEPTPIHPAFSHSAAALAAAYGPGGFGGPLYPFPRTVNDYTHALLRHDP  
LKPLLWSPFLQRPLHKRKGQVRF SNDQTIELEKKFETQKYLSPPERKRLAKMLQLSERQVKTW  
FQNRRAKWRLKQENPQSNKKEELES LDSSCDQRQDLPSEQNKGASLDSSQCSPSPASQEDLES  
EISEDSDQEV D IEGDKSYFNAG **LEESGGGGSPGRRRRRRRRRRR**