



**LD Biopharma, Inc.**  
7384 Trade Street, Suite B  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human KLF6-11R Protein  
**Catalog Number:** hTF-2239  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human KLF6 gene encodes a member of the Kruppel-like family of transcription factors. The zinc finger protein is a transcriptional activator, and functions as a tumor suppressor. Multiple transcript variants encoding different isoforms have been found for this gene, some of which are implicated in carcinogenesis. Recent data indicated that Klf6a-Ccl25b/CCR7 signaling pathway plays an important role in regulation of hematopoietic stem and progenitor cell lodgement and expansion.

Full-length human KLF6 cDNA (282aa) was constructed with codon optimization using gene synthesis technology and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal and 11 arginine (11R) Tag at its C-terminal. It was 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:** KLF6 (BCD1; COPEB; CPBP; ST12)  
**Accession Number:** NP\_001291  
**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, Sucrose and DTT.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Yuanyuan Xue, et al. *The Vascular Niche Regulates Hematopoietic Stem and Progenitor Cell Lodgment and Expansion via klf6a-ccl25b*. *Developmental Cell*. 42, 1-14 (2017)



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Wang K, et al., *miR-4262 Promotes Proliferation and Invasion of Human Breast Cancer Cells Through Directly Targeting KLF6 and KLF15*. *Oncol. Res.* 25 (2), 277-283 (2017)

Gao Y, et al., *KLF6 Suppresses Metastasis of Clear Cell Renal Cell Carcinoma via Transcriptional Repression of E2F1*. *Cancer Res.* 77 (2), 330-342 (2017)

Wen PH, et al., *Kruppel-like factor 6 suppresses growth and invasion of hepatocellular carcinoma cells in vitro and in vivo*. *Int J Immunopathol Pharmacol* 29 (4), 666-675 (2016)

## Applications

1. May be used for in vitro KLF6 mediated gene transcription regulation study for tumor and HSD differentiation & proliferation by intracellular delivery of this protein.
2. May be used for mapping protein-protein interaction.
3. May be used as specific substrate protein for kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. Potential biomarker/therapeutic protein for cancer treatment or regulating human HSC expansion in vitro.
5. As immunogen for specific antibody production.

## Quality Control

Purity: > 90% by SDS-PAGE.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGFDVLPMCSIFQELQIVHETGYFSALPSLEEYWQQT  
LELERYLQSEPCYVSASEIKFDSQEDLWTKIILAREKKEESELKISSPPEDTLISPSFCYNLE  
TNSLNSDVSSSESDSSEELSPTAKFTSDPIGEVLVSSGKLSSSVTSTPPSSPELSREPSQLWGC  
VPGELPSPGKVRSGTSGKPGDKNGDASPDGRRRVHRCHFNGCRKVYTKSSHLKAHQRTHTGK  
PYRCSWEGCEWRFARSDELTRHFRKHTGAKPFKCSHCDFSRSDHLALHMKRHLESGGGGSPG  
RRRRRRRRRR