



**LD Biopharma, Inc.**  
9924 Mesa Rim Road, Suite B  
San Diego, CA 92121  
Tel: 858-876-8266  
<http://www.ldbiopharma.com>

## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human SCML1 Protein  
**Catalog Number:** hTF-1348  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human Sex comb on Midleg like protein 1 (SCML1) gene spans 18 kb and contains 6 exons. It is transcribed from telomere to centromere. mRNA profiling data indicated that SCML1 express at very low level in most of human adult tissues, but high in fetal / testis tissue. At least 3 Isoforms have been identified for SCML1 gene. The predicted 302-amino acid SCML1 protein contains 2 domains that are present in PcG gene products and their mammalian homologs. In addition to the Scm gene product, the SCML1 protein shares high sequence similarity with the Drosophila polyhomeotic (Ph) gene product, mouse Mph1, and human EDR1 and EDR2, all of which are PcG members or homologs which plays a major role in regulation of gene transcription. SCML1 can be detected in various cancer cell lines.

Full-length of human SCML1 cDNA (2 – 302aa, Isoform-B, which derived from BC026159) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (31aa) fusion at its N-terminal. This protein was expressed in E. coli as inclusion bodies, refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

**Gene Symbol:** SCML1  
**Accession Number:** NP\_006737.2  
**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 7 days.



**LD Biopharma, Inc.**  
9924 Mesa Rim Road, Suite B  
San Diego, CA 92121  
Tel: 858-876-8266  
<http://www.ldbiopharma.com>

## Key References

Wu HH. et al., *Adaptive evolution of SCML1 in primates, a gene involved in male reproduction*. BMC Evol. Biol. 8, 192 (2008)

Vaudin M, et al., *Characterization of SCML1, a new gene in Xp22, with homology to developmental polycomb genes*. Genomics 49 (1), 96-102 (1998)

## Applications

1. May be used for in vitro mediated gene transcription repressive regulation study in various cancer cells using "ProFectin" based intracellular delivery of this protein.
2. May be used as specific protein substrate for kinase and ubiquitin (Sumo pathway) related enzyme functional screening assays.
3. May be used for SCML1 protein-protein interaction mapping.
4. As immunogen for specific antibody production.

## Quality Control

1. Purity: > 90% by SDS-PAGE.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGEFMSNSSSEIDVQEPNIVSDASCNTEEQ~~L~~KTVDDVLIH  
CQVIYDALQNLDDKKIDVIRRKVSKIQRFHARSLWTNHNKRYGYKKHSYRLVKKLKLQKMKKNEVY  
ETFSYPE~~S~~YSP~~T~~LPVSRRENNSPSNLPRPSFCMEEYQRAELEEDPILSRTPSPVHPSDFSEHNC  
QPYYASDGATYGSSSGLCLGNPRADSIHNTYSTDHASAAPPSVTRSPVENDGYIEEGSITKHPS  
TWSVEAVVLF~~L~~KQTDPLALCPLVDLFRSHEIDGKALLLLTSDVLLKHLGVKLG~~T~~AVKLCYYIDR  
LKQGKCFEN