



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 MSLN Protein
Catalog Number: hRP-1599
Manufacturer: LD Biopharma, Inc.

Introduction

Human mesothelin (MSLN) gene encodes a precursor protein that is cleaved into two products, megakaryocyte potentiating factor and mesothelin. Megakaryocyte potentiation factor functions as a cytokine that can stimulate colony formation in bone marrow megakaryocytes. Mesothelin is a glycosylphosphatidylinositol-anchored cell-surface protein that may function as a cell adhesion protein. This protein is overexpressed in epithelial mesotheliomas, ovarian cancers and in specific squamous cell carcinomas. Alternative splicing results in multiple transcript variants.

Full-length mature human MSLN (37 – 606 aa, derived from BC009272) gene was constructed with 29 aa N-terminal T7 / His / TEV cleavage site Tag and 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: MSLN (MPF; SMRP)
Accession Number: NP_005814.2
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, Sucrose, 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

Corradi M, et al., *YKL-40 and mesothelin in the blood of patients with malignant mesothelioma, lung cancer and asbestosis*. Anticancer Res. 33 (12), 5517-5524 (2013)

Parinyanitikul N, et al., *Mesothelin expression and survival outcomes in triple receptor*



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

negative breast cancer. Clin. Breast Cancer 13 (5), 378-384 (2013)

Mundt F, et al., *Hyaluronan and N-ERC/mesothelin as key biomarkers in a specific two-step model to predict pleural malignant mesothelioma* PLoS ONE 8 (8), E72030 (2013)

Gnemmi V, et al., *Pancreatic metastases of renal clear cell carcinoma: a clinicopathological study of 11 cases with special emphasis on the usefulness of PAX2 and mesothelin for the distinction from primary ductal adenocarcinoma of the pancreas.* Anal. Quant. Cytol. Histol. 35 (3), 157-162 (2013)

Scholler N, et al., *Soluble member(s) of the mesothelin/megakaryocyte potentiating factor family are detectable in sera from patients with ovarian carcinoma.* Proc. Natl. Acad. Sci. U.S.A. 96 (20), 11531-11536 (1999)

Applications

1. May be used as auto-antibodies detection reagent, which will react with sera of some auto-immune diseases patients.
2. May be used for in vitro MSLN mediated cell adhesion regulation study with this protein either as soluble factor or as coating matrix protein.
3. May be used for MSLN protein-protein interaction assay.
4. May be used as specific substrate protein for kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays.
5. Potential biomarker protein for monitoring various cancer treatment progress or early diagnostic biomarker.
6. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGEFLAGETGQEAAPLDGVLANPPNIISSLSRQLLGFPC
AEVSGLSTERVRELAVALAQKNVKLSTEQLRCLAHRLSEPPEDLDALPLDLLLFLNPDAFSGPQ
ACTRFFSRITKANVDLLPRGAPERQRLLPALACWGVRSLLSEADVRLGGLACDLPGRFVAE
SAEVLLPRLVSCPGLDQDQQAARAALQGGGPPYGGPPSTWSVSTMDALRGLLPVLGQPIIRSI
PQGIVAAWRQRSSRDPSWRQPRTLRLPRFRREVEKTACPSGKKAPEIDESLIIFYKKWELEACV



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

DAALLATQMDRVNAIPFTYEQLDVLKHKLDELYPQGYPESVIQHLGYLFLKMSPEDIRKWNVTS
LETLKALLEVNKGHEMSPQVATLIDRFVKGRGQLDKDTLDTLTAFYYPGYLCSLSPEELSSVPPS
SIWAVRPQDLDTCDPRQLDVLYPKARLAFQNMNGSEYFVKIQSFLGGAPTEDLKALSQQNVSM
LATFMKLRTDAVLPLTVAEVQKLLGPHVEGLKAEERHRPVRDWILRQRQDDLDTLGLGLQGGIP
NGYLVLDLSMQEALS