



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 MyoD1-11R Protein
Catalog Number: hTF-0120
Manufacturer: LD Biopharma, Inc.

Introduction

Human MyoD1 (**myoblast determination protein 1**) encodes a nuclear protein that belongs to the basic helix-loop-helix family of transcription factors and the myogenic factors subfamily. It regulates muscle cell differentiation by inducing cell cycle arrest, a prerequisite for myogenic initiation. The protein is also involved in muscle regeneration. It activates its own transcription which may stabilize commitment to myogenesis.

Recombinant human MyoD1 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 muscle cell differentiation.

Gene Symbol: MyoD1 (bHLHc1; MYF3; MYOD; PUM)
Accession Number: NP_002469
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

Voronova,A., et al. *Functional activity of myogenic HLH proteins requires hetero-oligomerization with E12/E47-like proteins in vivo*. Cell 66 (2), 305-315 (1991)

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



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

Applications

1. Protein transduction for human myogenesis study.
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_ELLSPPLRDVDLTAPDGSLSFATTTDDFYDDPCFDSPDLRFFEDLDPRLMHVGAL
LKPEEHSHPAAVHPAPGAREDEHVRAPSGHHQAGRCLLWACKACKRKT'TNADRRKAATMRERR
RLSKVNEAFETLKRCTSSNPNQRLPKVEILRNAIRYIEGLQALLRDQDAAPPAAAAFYAPGPL
PPGRGGEHYSGDSDASSPRSNCSGMMDYSGPPSGARRRNCYEGAYYNEAPSEPRPGKSAAVSS
LDCLSSIVERISTESPAAPALLLADVPSPPRRQEAAAPSEGESSGDPTQSPDAAPQCPAGAN
PNPIYQVL**LEESGGGSGPRRRRRRRRRRR**