



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human HSF1-11R Protein
Catalog Number: hTF-0380
Manufacturer: LD Biopharma, Inc.

Introduction

The product of this human heat shock factor protein 1 (HSF1) is a heat-shock transcription factor. Transcription of heat-shock genes is rapidly induced after temperature stress. Hsp90, by itself and/or associated with multichaperone complexes, is a major repressor of this gene. Recent data demonstrated HSF1 protein plays a major role in the regulating hepatic steatosis and metabolic syndrome, which link to Hepatocellular carcinoma (HCC) development

Recombinant human HSF1 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 HCC development in vitro.

Gene Symbol: HSF1
Accession Number: NP_005517
Species: Human
Size: 20 µg / Vial
Composition: 0.2 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

Xiongjie Jin, et al. *Heat Shock Trnascrption Factor 1 is a key determinant of HCC development by regulating hepatic steatosis and metabolic syndrome.* Cell Metabolism 14, 91-103. (2011)



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

Applications

1. Protein transduction for study of hepatocytes cell metabolic pathway regulation.
2. Active recombinant protein, may be used for ELISA based DNA/Protein binding assay.
3. As specific protein substrate for kinase assay.
4. As immunogen for specific antibody production.

Quality Control

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

Recombinant Protein Sequence

29aa_Tag_DLPVGPGAAGPSNVPAFLTKLWTLVSDPDTDALICWSPSGNSFHVFDQGQFAKEV
LPKYFKHNNMASFVRQLNMYGFRKVVHIEQGGLVKPERDDTEFQHPCFLRGQEQLLENIKRKVT
SVSTLKSEDIKIRQDSVTKLLTDVQLMKGKQECMDSKLLAMKHENEALWREVASLRQKHAQQQK
VVNKLIQFLISLVQSNRILGVKRKIPLMLNDSGSAHSMPKYSRQFSLEHVHGSGPYSAPSPAYS
SSSLYAPDAVASSGPIISDITELAPASPMASPGGSIDERPLSSSPLVRVKEEPPSPPPQSPRVEE
ASPGRPSSVDTLISPTALIDSILRESEPPASVTALTDARGHTDTEGRPPSPPTSTPEKCLSV
ACLDKNEISDHLAMDNDNLQTMLSSHGFSVDTSALLDLFSPSVTVPDMSLPDLDSLASIQ
ELLSPQEP RPPEAENS SPDSGKQLVHYTAQPLFLLDPGSVDTGSNDLPVLFELGEGSYFSEGD
GFAEDPTISLLTGSEPPKAKDPTVSLEESGGGGSPGRRRRRRRRRR