



LD Biopharma, Inc.
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<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human ENOSF1 Protein
Catalog Number: hRP-0751
Manufacturer: LD Biopharma, Inc.

Introduction

Human enolase superfamily member 1 (ENOSF1) gene was originally identified as a naturally occurring antisense transcript to the human thymidylate synthase gene. Alternate splice variants have been described, one of which (named rTSalpha) represents an alternate 3'UTR that is complementary to the 3'UTR and terminal intron of the thymidylate synthase (TS) RNA and down-regulates TS expression. Other transcript variants (rTSbeta and rTSgamma) do not overlap the TS locus. The function of ENOSF1 gene appears to be primarily to regulate expression of the TS locus both via the antisense transcript as well as through the encoded proteins. mRNA profiling indicated that ENOSF1 dominantly expressed in Pineal tissue, and detectable in fetal thyroid tissue. Recent data from SNP mapping demonstrated that ENOSF1 function regulation may be involved in coronary atherosclerosis progress.

Full-length human ENOSF1 (443aa) gene was constructed with 15aa N-terminal T7 tag and expressed in E.coli as inclusion bodies, refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: ENOSF1 (HSRTSbeta; RTS; TYMSAS)
Accession Number: NP_059982
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



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Wang, Y., et al., *Common polymorphisms in ITGA2, PON1 and THBS2 are associated with coronary atherosclerosis in a candidate gene association study of the Chinese Han population.* J. Hum. Genet. 55 (8), 490-494 (2010)

Liang, P., et al., *Comparative genomic analysis reveals a novel mitochondrial isoform of human rTS protein and unusual phylogenetic distribution of the rTS gene.* BMC Genomics 6, 125 (2005)

Dolnick, B.J., et al., *A novel function for the rTS gene.* Cancer Biol. Ther. 2 (4), 364-369 (2003)

Applications

1. May be used for in vitro methionine metabolism pathway regulation study with recombinant ENOSF1 protein intracellular delivery methods
2. As soluble/native protein, may be used as enzymatic substrate protein for ubiquitin assay.
3. May be used for mapping protein-protein interaction assay.
4. May be used as antigen for specific antibody development.

Quality Control

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

Recombinant Protein Sequence

MASMTGGQQMGRGEFMVRGRISRLSVRDVRFPTSLGGHGADAMHTDPDYSAAAYVVIETDAEDGI
KCGGITFTLGKGT EVVVCAVNALAHHVLNKDLKDIVGDFRGRFYRQLTSDGQLRWIGPEKGVVHL
ATAAVLNAVWDLWAKQEGKPVWKLVDMDPRMLVSCIDFRYITDVLTEEDALEILQKGQIGKKE
REKQMLAQGYPAYTTSCAWLGYSDDTLKQLCAQALKDGWTRFKVKVGADLQDDMRRRCQIIRDMI
GPEKTLMM DANQRWDVPEAVEWMSKLA FKPLWIEEPTSPDDILGHATISKALVPLGIGIATGE
QCHNRVIFKQLLQAKALQFLQIDSCRLG SVNENLSVLLMAKKFEIPVCPHAGGVGLCELVQHLLI
IFDYISVSASLENRVCEYVDHLHEHFKYPVMIQRASYMPPKDPGYSTEMKEESVKKHQYPDGEV
WKKLLPAQEN