

Recombinant human DECR1 protein

Catalog Number: ATGP0984

PRODUCT INFORMATION

Expression system

E.coli

Domain

35-335aa

UniProt No.

Q16698

NCBI Accession No.

NP_001350

Alternative Names

24-dienoyl-CoA reductase mitochondrial, 2,4-dienoyl-CoA reductase, mitochondrial, DECR, NADPH, SDR18C1

PRODUCT SPECIFICATION

Molecular Weight

34.4 kDa (322aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT

Purity

> 90% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

DECR1 is a mitochondrial protein that exists as a homotetramer and belongs to the family of short-chain dehydrogenases/reductases. It functions as an auxiliary enzyme of beta-oxidation and participates in the metabolism of unsaturated fatty enoyl-CoA esters. Specifically, DECR1 uses NADP⁺ to catalyze the reduction of 2, 4-dienoyl-CoA to yield trans-3-enoyl-CoA, which can then be used as an intermediate in the Krebs cycle. Additionally, DECR1 is thought to function as a tumor suppressor, possibly downregulating the expression of Neu and slowing the rate of tumorigenesis. Recombinant human DECR1 protein, fused to His-tag at N-terminus, was

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expressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH M>NTEALQSKF FSPLQKAMLP PNSFQGKQVAF ITGGGTGLGK GMTTLLSSLG
AQCVIASRKM DVLKATAEQI SSQTGNKVHA IQCDVRDPDM VQNTVSELK VAGHPNIVIN NAAGNFISPT ERLSPNAWKT
ITDIVLNGTA FVTLEIGKQL IKAQKGA AFL SITTIIYAETG SGFVVPSASA KAGVEAMSKS LAAEWGKYGM RFNVIQPGPI
KTKGAFSRLD PTGTFEKEMI GRIPCGRLGT VEELANLAAF LCSDYASWIN GAVIKFDGGE EVLISGEFND LRKVTKEQWD
TIEELIRKTK GS

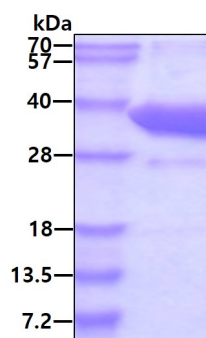
General References

Koivuranta KT., et al. (1994) *Biochem J.* 304(3):787-92.

Roe CR., et al. (1990) *J Clin Invest.* 85(5):1703-7.

DATA

SDS-PAGE



3 μ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain