

Recombinant human Carboxylesterase 1/CES1 protein

Catalog Number: ATGP3862

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

19-568aa

UniProt No.

P23141

NCBI Accession No.

NP_001020366

Alternative Names

Liver carboxylesterase 1 isoform a, CES1, ACAT, CE-1, CEH, CES2, hCE-1, HMSE, HMSE1, PCE-1, REH, SES1, TGH

PRODUCT SPECIFICATION

Molecular Weight

61.7 kDa (559aa)

Concentration

0.5mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. 25mM Sodium Acetate (pH 4.0) containing 10% glycerol, 0.1M NaCl, 0.1mM PMSF

Purity

> 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 700pmol/min/ug and is defined as the amount of enzyme that hydrolyze 1pmole of p-nitrophenyl acetate to p-nitrophenol per minute at pH 7.5 at 37C.

Tag

His-Tag

Application

Enzyme Activity, 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

Recombinant human Carboxylesterase 1/CES1 protein

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Description

Carboxylesterase 1, also known as liver carboxylesterase 1 isoform a, is a member of a large family of carboxylesterases. It is also part of the alpha/beta fold hydrolase family. Carboxylesterases hydrolyze long-chain fatty acid esters and thioesters. The resulting carboxylates are then often conjugated by other enzymes to increase solubility and eventually excreted. Also, this enzyme may play a role in detoxification in the lung and/or protection of the central nervous system from ester or amide compounds. This protein is known to react aromatic and aliphatic esters and can manage cellular cholesterol esterification levels. It is present in most tissues with higher levels in the liver and low levels in the gastrointestinal tract. Recombinant human Carboxylesterase 1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

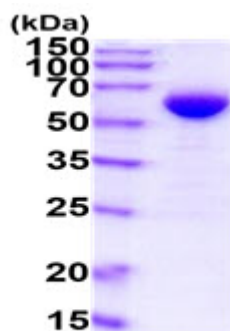
ADLGHPSSPP VVDTVHGKVL GKFVSLEGFA QPVAIFLGIP FAKPPLGPLR FTPPQPAEPW SFVKNATSYP PMCTQDPKAG
 QLLSELFTHNR KENIPLKLSE DCLYLNIYTP ADLTKKNRLP VMVWIHGGGL MVGAASTYDG LALAAHENVV VVTIQYRLGI
 WGFFSTGDEH SRGNWGHLDQ VAALRWVQDN IASFGGNPGS VTIFGESAGG ESVSVLVLSL LAKNLFHRAI SESGVALTSV
 LVKKGDVKPL AEQIAITAGC KTTTSAMVMH CLRQKTEEL LETTLKMKFL SLDLQGDPRE SQPLLGTVID GMLLLKTPEE
 LQAERNFHTV PYMVGINKQE FGWLIPMQLM SYPLSEGQLD QKTAMSLWK SYPLVCIAKE LIPEATEKYL GTDDTVKKK
 DLFLDLIADV MFGVPSVIVA RNHRDAGAPT YMYEFQYRPS FSSDMKPKTV IGDHGDELFS VFGAPFLKEG ASEEEIRLSK
 MVMKFWANFA RNGNPNGEGL PHWPEYNQKE GYLQIGANTQ AAQKLKDEK AFWTNLFACK AVEKPPQTEH IELHHHHHH

General References

Satoh T., et al, (2006) Chem Biol Interact. 162:195-211.
 Redinbo MR., et al. (2005) Drug Discovery Today 10:313.

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.