

Carboxylesterase 1 (CES1) Active Protein | CES1 active protein

Active Carboxylesterase 1 (CES1)

CATALOG # AAA152179	HOST 293F cell	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Carboxylesterase 1 (CES1); Active Carboxylesterase 1 (CES1); CES1/Carboxylesterase 1; ACAT; CEH; CES2; HMSE1; PCE1; SES1; TGH; Retinyl ester hydrolase; Serine esterase 1; Triacylglycerol hydrolase; Egasyn; Cocaine carboxylesterase; Liver Carboxylesterase 1; CES1 active protein

PRODUCT SPECIFICATIONS

Host	293F cell
Purity/Purification	Greater than 95% by SDS-PAGE
Form/Format	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300. Freeze-dried powder
Sequence	Gly18~Leu5 67
Applicable Applications for CES1 active protein	Activity Assay, Cell Culture
Species	Human
Isoelectric Point	6.5
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months Stable for 12 months if correctly stored.

IMAGES

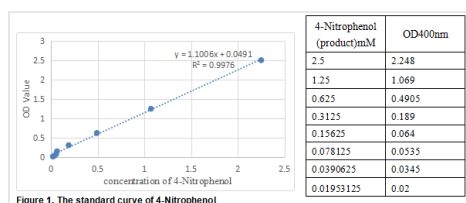
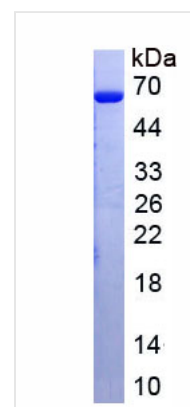


Figure 1. The standard curve of 4-Nitrophenol

Bioactivity

carboxylesterase 1 (CES1) also known as Liver carboxylesterase 1 is a serine esterase and member of a large multigene carboxylesterase family. The protein Involved in the detoxification of xenobiotics and in the activation of ester and amide prodrugs. Hydrolyzes aromatic and aliphatic esters, but has no catalytic activity toward amides or a fatty acyl-CoA ester. Hydrolyzes the methyl ester group of cocaine to form benzoylecgonine. Thus, the recombinant human CES1 activity was measured by its ability to hydrolyze 4-Nitrophenyl acetate (4-NPA) to 4-Nitrophenol. The reaction was performed in 50 mM Tris, pH 7.5(Assay Buffer), initiated by addition 50 uL of various concentrations of CES1 (dilute by Assay Buffer) to 50 uL of 2 mM Substrate 4-NPA(100 mM stock in Acetone, dilute by deionized water). Incubated at 37 degree C for 10min, then read at a wavelength of 400 nm.

SDS-PAGE
SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for CES1 active protein	Enzyme & Kinase; Metabolic pathway; Neuro science; Active proteins/AP
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NCBI AND UNIPROT INFORMATION

NCBI GI #	119576
NCBI GeneID	1066
UniProt Accession #	P23141; P82127; Q00015; Q13657; Q14062; Q16737; Q16788; Q549X7; A6NIM1; A8K3K8; A8K844; E9PAU8
Molecular Weight	567
NCBI Official Full Name	Liver carboxylesterase 1
NCBI Official Synonym Full Names	carboxylesterase 1
NCBI Official Symbol	CES1
NCBI Official Synonym Symbols	CEH; REH; TGH; ACAT; CE-1; CES2; HMSE; SES1; HMSE1; PCE-1; hCE-1
NCBI Protein Information	liver carboxylesterase 1; egasyn; serine esterase 1; retinyl ester hydrolase; cocaine carboxylesterase; triacylglycerol hydrolase; carboxylesterase 2 (liver); brain carboxylesterase hBr1; cholesteryl ester hydrolase; monocyte/macrophage serine esterase; m
UniProt Protein Name	Liver carboxylesterase 1
UniProt Gene Name	CES1
UniProt Synonym Gene Names	CES2; SES1; ACAT; CE-1; hCE-1; REH; TGH
UniProt Entry Name	EST1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://www.aaabiotech.com/293f-active-protein/carboxylesterase-1-ces1/152179>