

Active Recombinant Human CES1 Protein

Cat. No. CES1-106H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CES1 protein without tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-567 aa
Description	This gene encodes a member of the carboxylesterase large family. The family members are responsible for the hydrolysis or transesterification of various xenobiotics, such as cocaine and heroin, and endogenous substrates with ester, thioester, or amide bonds. They may participate in fatty acyl and cholesterol ester metabolism, and may play a role in the blood-brain barrier system. This enzyme is the major liver enzyme and functions in liver drug clearance. Mutations of this gene cause carboxylesterase 1 deficiency. Three transcript variants encoding three different isoforms have been found for this gene.
Bio-activity	CES Activity Data(Unless otherwise stated, all assays are carried out at 30 centigrade in 50 mM potassium phosphate buffer (pH 7.4)/acetonitrile, 98/2 (v/v)) Substrate: 4-nitrophenyl butyrate Linear with time up to: 10 min(Determined at 90 µM substrate, using a protein concentration of 15 µg/ml) Linear with protein up to: 50 µg/ml(Determined at 90 µM substrate) Vmax: 511 nmol/min/mg protein

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	Km: 152 μ M
Usage	For laboratory (research) purposes only
Storage	Store at -80 centigrade. Avoid frequent temperature changes. Thaw on ice.
Concentration	Protein Concentration: 10 mg/ml
Storage Buffer	50 mM Tris-acetate (pH 7.6), 250 mM sucrose, 0.25 mM EDTA

GENE INFORMATION

Gene Name	CES1 carboxylesterase 1 [Homo sapiens (human)]
Official Symbol	CES1
Synonyms	CES1; carboxylesterase 1; CEH; REH; TGH; ACAT; CE-1; CES2; HMSE; SES1; HMSE1; PCE-1; hCE-1; liver carboxylesterase 1; acyl coenzyme A:cholesterol acyltransferase; brain carboxylesterase hBr1; carboxylesterase 1 (monocyte/macrophage serine esterase 1); carboxylesterase 2 (liver); cholesteryl ester hydrolase; cocaine carboxylesterase; egasyn; human monocyte/macrophage serine esterase 1; methylumbelliferyl-acetate deacetylase 1; monocyte/macrophage serine esterase; retinyl ester hydrolase; serine esterase 1; triacylglycerol hydrolase
Gene ID	1066
mRNA Refseq	NM_001025194
Protein Refseq	NP_001020365
MIM	114835

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