

Recombinant Human CES1, His-tagged

Cat. No. CES1-900H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Carboxylesterase 1/CES1 produced by mammalian cells expression system. Target protein is expressed with sequence (Gly18-Glu563) of Human CES1 fused with a polyhistidine tag at the C-terminus.
Species	Human
Source	Mammalian Cells
ProteinLength	18-563 a.a.
Description	Carboxylesterase 1 is a member of a large family of carboxylesterases that are responsible for the hydrolysis of ester and amide bonds. These enzymes have broad substrate specificity ranging from small molecule esters such as phenylester to long chain fatty acid esters and thioesters. They are major determinants of the pharmacokinetic behavior of most therapeutic agents containing an ester or amide bond. CES1 shares the serine hydrolase fold observed in other esterases. CES1 hydrolyzes aromatic and aliphatic esters, but has no catalytic activity toward amides or a fatty acyl-CoA ester. CES1 participates in detoxification of drugs such as cocaine and heroin in serum and liver. It may also play a role in detoxification in the lung and/or protection of the central nervous system from ester or amide compounds.
Purity	Greater than 95% as determined by SEC-HPLC. Greater than 95% as determined by reducing SDS-PAGE.
Endotoxin	Less than 0.1

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	ng/μg (1 IEU/μg)
Formulation	Recombinant Carboxylesterase 1/CES1 is supplied as a 0.2 μm filtered solution in 20mM HAc-NaAc,150mM NaCl,pH4.0.
Storage	Recombinant Carboxylesterase 1/CES1 should be stored desiccated below -18°C.
Note	Please avoid freeze-thaw cycles.
OfficialSymbol	CES1

GENE INFORMATION

Gene Name	CES1 carboxylesterase 1 [Homo sapiens]
Synonyms	CES1; carboxylesterase 1; CEH; REH; TGH; ACAT; CE-1; CES2; HMSE; SES1; HMSE1; PCE-1; hCE-1; 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; methylumbelliferyl-acetate deacetylase 1; acyl coenzyme A:cholesterol acyltransferase; acyl-coenzyme A:cholesterol acyltransferase; human monocyte/macrophage serine esterase 1; carboxylesterase 1 (monocyte/macrophage serine esterase 1); EC 3.1.1.1; EC 3.1.1.56; MT 1A; MT 2; MGC32848; MT2A
Gene ID	1066
mRNA Refseq	NM_001266
Protein Refseq	NP_001257

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MIM	114835
UniProt ID	P23141
Chromosome Location	16q22.2
Pathway	Drug metabolism - other enzymes; E2F transcription factor network; Fluoropyrimidine Activity; Irinotecan Pathway; retinol biosynthesis
Function	carboxylesterase activity; methyl indole-3-acetate esterase activity; methyl jasmonate esterase activity; methylumbelliferyl-acetate deacetylase activity; retinyl-palmitate esterase activity

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