

Recombinant Human Carboxylesterase 1/CES1 Protein (His Tag)

Catalog No. PKSH032167

Note: Centrifuge before opening to ensure complete recovery of vial contents.

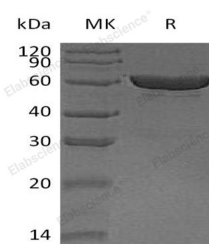
Description

Synonyms	Liver Carboxylesterase 1;Acyl-Coenzyme A:Cholesterol Acyltransferase;ACAT;Brain Carboxylesterase hBr1;Carboxylesterase 1;CE-1;hCE-1;Cocaine Carboxylesterase;Egasyn;HMSE;Methylumbelliferyl-Acetate Deacetylase 1;Monocyte/Macrophage Serine Esterase;Retinyl Ester Hydrolase;REH;Serine Esterase 1;Triacylglycerol Hydrolase;TGH;CES1;CES2;SES1
Species	Human
Expression Host	HEK293 Cells
Sequence	His19-Glu562
Accession	P23141-3
Calculated Molecular Weight	61.1 kDa
Observed molecular weight	60 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.
Formulation	Supplied as a 0.2 µm filtered solution of 20mM HAc-NaAc, 150mM NaCl, pH 4.0.
Reconstitution	Not Applicable

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Carboxylesterase 1 (CES1) is a member of a large family of carboxylesterases that are responsible for the hydrolysis of

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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.