# Recombinant Human Carboxylesterase 1/CES1 Protein (His

## Tag)

Catalog Number: 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

Sequence

His 19-Glu562

Accession

P23141-3

Calculated Molecular Weight

Observed molecular weight

Tag

HEK 293 Cells

His 19-Glu562

P23141-3

61.1 kDa

60 kDa

C-His

### **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.

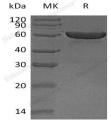
**Shipping** This product is provided as liquid. It is shipped at frozen temperature with blue

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 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.

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