

# 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

HEK293 Cells

### Sequence

His19-Glu562

### Accession

P23141-3

### Calculated Molecular Weight

61.1 kDa

### Observed molecular weight

60 kDa

### Tag

C-His

## Properties

### Purity

> 95 % as determined by reducing SDS-PAGE.

### Endotoxin

< 1.0 EU per  $\mu$ g 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.

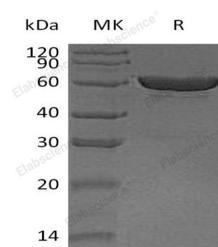
### Formulation

Supplied as a 0.2  $\mu$ m 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.

## For Research Use Only

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