

## Active Recombinant Human CES1 Protein (His19-Glu563), C-10×His tagged

Cat. No. CES1-13H    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>Product Overview</b> | Recombinant Human Carboxylesterase 1/CES1 Protein (His19-Glu563) with a C-terminal 10-His tag was expressed in Mouse myeloma cell line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | NS0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>    | His19-Glu563                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | 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. |
| <b>Bio-activity</b>     | Measured by its ability to hydrolyze p-nitrophenylacetate. The specific activity is > 6000 pmol/min/μg, as measured under the described conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Molecular Mass</b>   | Predicted Molecular Mass: 61 kDa<br>SDS-PAGE: 61 kDa, reducing conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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| <b>N-terminal Sequence Analysis</b> | His19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Endotoxin</b>                    | < 1.0 EU/μg of the protein by the LAL method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>                       | > 95%, by SDS-PAGE under reducing conditions and visualized by silver stain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Storage</b>                      | Use a manual defrost freezer and avoid repeated freeze-thaw cycles.<br>6 months from date of receipt, -20 to -70 centigrade as supplied.<br>3 months, -20 to -70 centigrade under sterile conditions after opening.                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Storage Buffer</b>               | Supplied as a 0.2 μm filtered solution in Sodium Acetate and NaCl.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Shipping</b>                     | The product is shipped with polar packs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>GENE INFORMATION</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Gene Name</b>                    | CES1 carboxylesterase 1 [ Homo sapiens (human) ]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Official Symbol</b>              | CES1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Synonyms</b>                     | 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; EC 3.1.1.1; EC 3.1.1.13; EC 3.1.1.56 |
| <b>Gene ID</b>                      | 1066                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|                |              |
|----------------|--------------|
| mRNA Refseq    | NM_001025194 |
| Protein Refseq | NP_001020365 |
| MIM            | 114835       |
| UniProt ID     | P23141       |

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