

Human CES1 protein, His tag

Cat. No. GTX00177-pro

Applications Functional Assay

Species Human

Package

10 µg

Applications

Application Note

Carboxylesterase 1 (CES1) also known as Liver carboxylesterase 1 is a serine esterase and member of a large multigene carboxylesterase family. The protein Involved in the detoxification of xenobiotics and in the activation of ester and amide prodrugs. Hydrolyzes aromatic and aliphatic esters, but has no catalytic activity toward amides or a fatty acyl-CoA ester. Hydrolyzes the methyl ester group of cocaine to form benzoylecgonine. Thus, the recombinant human CES1 activity was measured by its ability to hydrolyze 4-Nitrophenyl acetate (4-NPA) to 4-Nitrophenol. The reaction was performed in 50 mM Tris (pH 7.5; the Assay Buffer), initiated by addition 50 µl of various concentrations of CES1 (dilute by assay buffer) to 50 µl of 2 mM Substrate 4-NPA (100mM stock in Acetone, dilute by deionized water). Incubated at 37°C for 10min, then read at a wavelength of 400nm. One unit of enzyme activity is defined as the 1 µg of enzyme required to convert 1 pmol of 4-Nitrophenyl acetate to 4-Nitrophenol in 1min at 37°C. The specific activity of recombinant human CES1 is 1396 pmol/min/µg.

Observed MW (kDa) 35 kDa.

Properties

Form Lyophilized powder

Buffer Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.

Preservative ProClin 300

Storage For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.

Region/Sequence N-terminal His-Tag; Gly18~Leu299 (NP_001020365.1)

Expression System E. coli

Purity > 90%

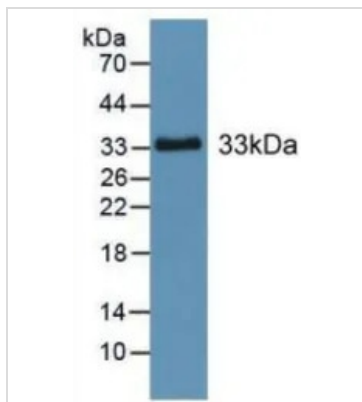
Endotoxin < 1 EU/µg

Conjugation Unconjugated

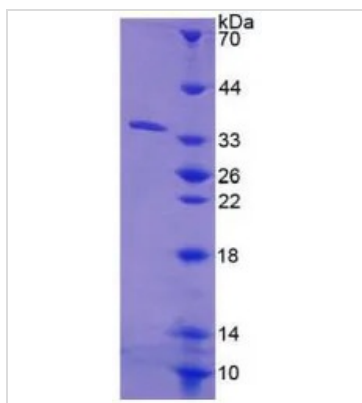
Note For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.



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DATA IMAGES

GTX00177-pro Image

WB analysis of GTX00177-pro Human CES1 protein.


GTX00177-pro Image

SDS-PAGE analysis of GTX00177-pro Human CES1 protein.



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