

Carboxylesterase 2 from Human, Recombinant

Cat. No. NATE-0812

Lot. No. (See product label)

Introduction

Description

Member of a serine esterase family that hydrolyze ester and amide bonds. Carboxylesterase 2 is an endoplasmic reticulum-bound hydrolase that plays a critical role in xenobiotic detoxification and activation for ester-containing therapeutics. Carboxylesterase 2 is also involved in the detoxification of drugs such as heroin and cocaine. This enzyme is thought to play a role in lipid metabolism. Human carboxylesterase 2 (hCE-2) recognizes a substrate with a large alcohol group and small acyl group. Its substrate specificity may be restricted by a capability of acyl-hCE-2 conjugate formation due to the presence of conformational interference in the active site pocket. Carboxylesterases catalyze the biotransformation of several ester-containing drugs and prodrugs such as angiotensin-converting enzyme inhibitor (temocarpil, cilazapril), anti-tumor drugs (capecitabin) and narcotics.

Synonyms

EC 3.1.1.1; Carboxylesterase 2; CES2; CES2A1; CE-2; PCE-2; iCE

Product Information

Species

Human

Source

Mouse NSO cells

Form

Supplied as a solution containing sodium chloride, sodium acetate, and 20% glycerol.

EC Number

EC 3.1.1.1

CAS No.

9016-18-6

Molecular Weight

~60 kDa

Purity

>95% (SDS-PAGE)

Activity

>30,000 (pmol/min/μg)

Concentration

0.4 - 0.6 mg/ml

Storage and Shipping Information

Storage

Store at -70°C