

Recombinant Mouse Ces1d, His-tagged

Cat. No. Ces1d-225M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the mouse CES3 (NP_444430.2) (Met1-Glu561) was expressed with a C-terminal polyhistidine tag.
Species	Mouse
Source	Human Cells
ProteinLength	1-561 a.a.
Description	Carboxylesterases hydrolyze esters of short-chain fatty acids and have roles in animals ranging from signal transduction to xenobiotic detoxification. In enzymology, a carboxylesterase is an enzyme that catalyzes the chemical reaction: a carboxylic ester + H₂O = an alcohol + a carboxylate. Most enzymes from this group belong to the superfamily of hydrolases with alpha/beta protein fold (so called Alpha/beta hydrolase fold), specifically those acting on carboxylic ester bonds. The carboxylesterase family of evolutionarily related proteins (those with clear sequence homology to each other) includes a number of proteins with different substrate specificities, such as acetylcholinesterases. Carboxylesterase 3, also known as Liver carboxylesterase 31 homolog and CES3, is a endoplasmic reticulum lumen which belongs to the type-B carboxylesterase/lipase family. CES3 is involved in the detoxification of xenobiotics and in the activation of ester and amide prodrugs. CES3 shows low catalytic efficiency for hydrolysis of CPT-11, a prodrug for camptothecin used in cancer therapeutics. CES3 is expressed in liver, colon and small intestine.

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Predicted N Terminal	Tyr 19
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.
Molecular Mass	The recombinant mouse CES3 comprises 554 amino acids and has a predicted molecular mass of 60.8 kDa. The apparent molecular mass of the protein is approximately 53 kDa in SDS-PAGE under reducing conditions.
Endotoxin	< 1.0 eu per µg of the protein as determined by the lal
Purity	>90 % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70°C
Storage	Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

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