Liver Carboxylesterase 1 (CES1) Mouse Recombinant Protein

PRODUCT OVERVIEW

Product Name	Liver carboxylesterase 1 (Ces1), Recombinant Protein
Full Product Name	Recombinant Mouse Liver carboxylesterase 1 (Ces1)
Product Gene Name	Ces1 recombinant protein
Product Synonym Gene Name	Ces1
Sequence	HPSLPPVVHT VHGKVLGKYV TLEGFSQPVA VFLGVPFAKP PLGSLRFAPP EPAEPWSFVK HTTSYPPLCY QNPEAALRLA ELFTNQRKII PHKFSEDCLY LNIYTPADLT QNSRLPVMVW IHGGGLVIDG ASTYDGVPLA VHENVVVVVI QYRLGIWGFF STEDEHSRGN WGHLDQVAAL HWVQDNIANF GGNPGSVTIF GESAGGESVS VLVLSPLAKN LFHRAIAQSS VIFNPCLFGR AARPLAKKIA ALAGCKTTTS AAMVHCLRQK TEDELLEVSL KMKFGTVDFL GDPRESYPFL PTVIDGVLLP KAPEEILAEK SFNTVPYMVG INKHEFGWII PMFLDFPLSE RKLDQKTAAS ILWQAYPILN ISEKLIPAAI EKYLGGTEDP ATMTDLFLDL IGDIMFGVPS VIVSRSHRDA GAPTYMYEYQ YRPSFVSDDR PQELLGDHAD ELFSVWGAPF LKEGASEEEI NLSKMVMKFW ANFARNGNPN GEGLPHWPEY DQKEGYLQIG VPAQAAHRLK DKEVDFWTEL RAKETAERSS HREHVEL
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	62,680 Da
Sequence Positions	19-565aa; Full Length of Mature Protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q8VCC2
Species	Mouse
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Ces1 recombinant protein	Carboxylesterase 1 is a member of a large multigene family. The enzymes encoded by these genes are responsible for the hydrolysis of ester- and amide-bond-containing drugs such as cocaine and heroin. They also hydrolize long-chain fatty acid esters and thioesters. This enzyme is known to hydrolyze aromatic and aliphatic esters and is necessary for cellular cholesterol esterification. It may also play a role in detoxification in the lung and or protection of the central nervous system from ester or amide compounds. Carboxylesterase deficiency may be associated with non-Hodgkin lymphoma or B-cell lymphocytic leukemia. Three transcript variants encoding three different isoforms have been found for this gene.
Other Notes	Small volumes of Ces1 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Ces1 purchase	MBS1477214 is a recombinant protein targeting Ces1. Also known as Recombinant Mouse Liver carboxylesterase 1 (Ces1). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Ces1. It may not necessarily be applicable to this product.

NCBI GI #	162287349
NCBI GeneID	12623
NCBI Accession #	NP_067431.2
UniProt Primary Accession #	Q8VCC2
UniProt Secondary Accession #	O55136
UniProt Related Accession #	Q8VCC2
GenBank Nucleotide #	NM_021456.4
NCBI Official Full Name	liver carboxylesterase 1
NCBI Official Synonym Full Names	carboxylesterase 1G
NCBI Official Symbol	Ces1g
NCBI Official Synonym Symbols	Ces1; Ces-1; Ses-1
UniProt Protein Name	Liver carboxylesterase 1
UniProt Synonym Protein Names	Acyl-coenzyme A:cholesterol acyltransferase; Carboxylesterase 1G; ES-x
Protein Family	Liver carboxylesterase
UniProt Gene Name	Ces1
UniProt Synonym Gene Names	Ces1g
NCBI Protein Information	liver carboxylesterase 1
NCBI Summary for Ces1	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. The expression and activity of this gene is age-related but independent of growth hormone level. This gene is clustered with Ces7 and Ces3 on chromosome 8. [provided by RefSeq, Jun 2010]
UniProt Comments for Ces1	Involved in the detoxification of xenobiotics and in the activation of ester and amide prodrugs.
Research Articles on Ces1	**1.** Loss of CES1 is associated with the susceptibility to high cholesterol diet-induced liver injury.
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