

Carboxylesterase 1C Protein, Mouse (P.pastoris, His)

Cat. No.:	HY-P71802
Synonyms:	Carboxylesterase 1C; Ces N; Ces1c; Ee 1; Ee 4; Ee1; Es N; Es1; Es4; EsN; EST1C_MOUSE; Esterase 1; Liver carboxylesterase N; Lung surfactant convertase; PES-N; PESN
Species:	Mouse
Source:	P. pastoris
Accession:	P23953 (H19-H550)
Gene ID:	13884
Molecular Weight:	Approximately 60.6 kDa

PROPERTIES

AA Sequence

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H S L L P P V V D T   T Q G K V L G K Y I   S L E G F E Q P V A   V F L G V P F A K P
P L G S L R F A P P   Q P A E P W S F V K   N A T S Y P P M C S   Q D A G W A K I L S
D M F S T E K E I L   P L K I S E D C L Y   L N I Y S P A D L T   K S S Q L P V M V W
I H G G G L V I G G   A S P Y N G L A L S   A H E N V V V V T I   Q Y R L G I W G L F
S T G D E H S P G N   W A H L D Q L A A L   R W V Q D N I A N F   G G N P D S V T I F
G E S S G G I S V S   V L V L S P L G K D   L F H R A I S E S G   V V I N T N V G K K
N I Q A V N E I I A   T L S Q C N D T S S   A A M V Q C L R Q K   T E S E L L E I S G
K L V Q Y N I S L S   T M I D G V V L P K   A P E E I L A E K S   F N T V P Y I V G F
N K Q E F G W I I P   M M L Q N L L P E G   K M N E E T A S L L   L R R F H S E L N I
S E S M I P A V I E   Q Y L R G V D D P A   K K S E L I L D M F   G D I F F G I P A V
L L S R S L R D A G   V S T Y M Y E F R Y   R P S F V S D K R P   Q T V E G D H G D E
I F F V F G A P L L   K E G A S E E E T N   L S K M V M K F W A   N F A R N G N P N G
E G L P H W P E Y D   E Q E G Y L Q I G A   T T Q Q A Q R L K A   E E V A F W T E L L
A K N P P E T D P T   E H
  
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Biological Activity The enzyme activity is measured by its ability to cleave substrate 4-NPA, The Km is 1.198 - 2.303 mM.

Appearance Lyophilized powder.

Formulation Lyophilized from a 0.2 µm sterile filtered PBS, 6% Trehalose, pH 7.4

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O.

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The Carboxylesterase 1C Protein plays a crucial role in the detoxification of xenobiotics and the activation of ester and amide prodrugs. This versatile enzyme is actively engaged in extracellular metabolism, particularly contributing to the processing of lung surfactant. Its involvement in both xenobiotic metabolism and prodrug activation underscores its significance in cellular defense mechanisms and therapeutic interventions. The dual functions of Carboxylesterase 1C highlight its ability to modulate the bioavailability of drugs and facilitate the breakdown of foreign substances, illustrating its vital role in maintaining cellular homeostasis and drug metabolism.

Caution: Product has not been fully validated for medical applications. For research use only.

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