Mouse CES2 / Carboxylesterase-2 Protein (His Tag)

Catalog Number: **50515-M08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

ces2A3

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse CES2 (NP_663578.1) (Met 1-Lys 557) was expressed, with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to hydrolyze pnitrophenylacetate. The specific activity is >90,000 pmoles/min/μg.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Gln 27

Molecular Mass:

The recombinant mouse CES2 consists of 542 amino acids and has a predicted molecular mass of 60.4 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmCES2 is approximately 52 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

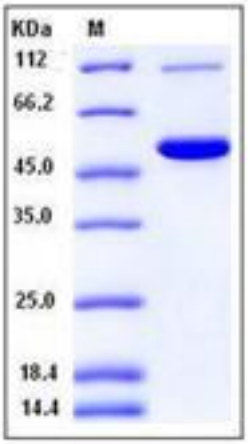
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Carboxylesterase 2 (CES2) is a member of the carboxylesterase family and belongs to the multigene family. Carboxylesterase 2 is responsible for the hydrolysis of ester- and amide-bond-containing drugs such as cocaine and beroin. It also serves to hydrolyze long-chain fatty acid esters and thioesters. It is speculated that carboxylesterases may play a role in lipid metabolism and the blood-brain barrier system and together with isform 1, are a serine esterase involved in both drug metabolism and activation. Human carboxylesterase 2 is commonly expressed in tumor tissues and irinotecan, a topoisomerase I inhibitor commonly used in the treatment of many solid tumors.

References

1.Imai T. *et al.* (2006) Human carboxylesterase isozymes: catalytic properties and rational drug design. Drug metab pharmacokinet. 21 (3): 173-85. 2.Guang Xu, *et al.* (2002) Human carboxylesterase 2 is commonly expressed in tumor tissue and is correlated with activation of irinotecan. Clin Cancer Res. 8: 2605. 3.Zhang, *et al.* (2002) Comprehensive Evaluation of Carboxylesterase-2 Expression in Normal Human Tissues Using Tissue Array Analysis. Applied Immunohistochemistry & Molecular Morphology. 10 (4): 374-80.