Recombinant Human aox / ACOX1

Catalog Number: **11266-H07B**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

ACOX, MGC1198, PALMCOX, SCOX

Protein Construction:

A DNA sequence encoding the human ACOX1 (AAH08767.1) (Met 1-Leu 660) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: *Baculovirus*

QC Testing

Purity: > 92 % as determined by SDS-PAGE.

Endotoxin:

<1.0 EU per μg 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: Met

Molecular Mass:

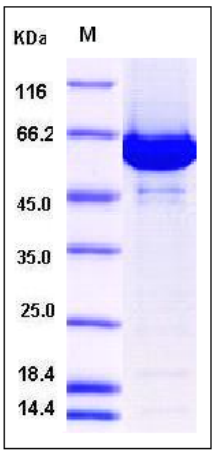
The recombinant human ACOX1consists of 679 amino acids and has a calculated molecular mass of 76.7KDa. It migrates as an approximately 60 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from 0.2μm filtered solution of 20mM Tris, 500mM NaCl, pH7.0, 20% gly, 3mM DTT

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.

SDS-PAGE:



Usage Guide

Storage:

Store it under sterile conditions at -70℃ 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.

Protein Description

Peroxisomal acyl-coenzyme A oxidase 1(ACOX1 or AOX) is the first enzyme of the fatty acid beta-oxidation pathway. The palmitoyl-CoA oxidase (ACOX1/AOX) oxidizes the CoA esters of straight chain fatty acids and prostaglandins and donates electrons directly to molecular oxygen, thereby producing H_2O_2. Human ACOX1/AOX is a protein of 661-amino acids, including the carboxyl-terminal sequence(Ser-Lys-Leu) known as a minimal peroxisome-targeting signal. Human ACOX1/AOX, the first and rate-limiting enzyme of the peroxisomal β-oxidation pathway, has two isoforms including ACOX1a and ACOX1b, transcribed from a single gene. The human ACOX1b isoform is more effective than the ACOX1a isoform in reversing the Acox1 null phenotype in the mouse partly because of the Substrate utilization differences.

References

1. Vluggens A, et al. (2010) Laboratory Investigation. 90: 696–708.
2. Chu R, et al. (1995) J Biol Chem. 270(9):4908-15.
3. Aoyama T, et al. (1994) Biochem Biophys Res Commun. 198(3):1113-8.