
Recombinant Human ACOX1 / aox Protein (His tag)**Cat.NO.: TP06548**

3th Edition

Synonyms:ACOX;PALMCOX;SCOX

Description: Peroxisomal acyl-coenzyme A oxidase 1 (ACOX1 or AOX) is the first enzyme of the fatty acid beta-oxidation pathway and belongs to the Acyl-CoA oxidase family. Human liver peroxisomes contain two acyl-CoA oxidases, namely, palmitoyl-CoA oxidase (ACOX1/AOX) and a branched chain acyl-CoA oxidase. 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 H₂O₂. 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.

Form:PBS**Molecular Weight:**76.7 kDa**Sequences:**Met 1-Leu 660**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.