

Active Recombinant Mouse Amine Oxidase, Copper Containing 3, His-tagged

Cat. No. Aoc3-561M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Aoc3 protein was expressed in <i>Spodoptera frugiperda</i> , Sf 21 (baculovirus)-derived with an N-terminal Met, 10-His tag, and a Gly-Gly-Gly-Ser-Gly-Gly-Gly-Ser-Gly-Gly-Gly-Ser-Ile-Glu-Gly-Arg linker. Gly27-Asn765.
Species	Mouse
Source	<i>S. frugiperda</i>
Protein Length	27-765 a.a.
Description	Aoc3 is a copper amine oxidase with a topaquinone cofactor. Aoc3 is a type II integral membrane protein, but a soluble form of the enzyme is present in human serum, and its level increases in diabetes and some inflammatory liver diseases. Aoc3 catalyzes the oxidative deamination of small primary amines such as methylamine, benzylamine, and aminoacetone in a reaction that produces an aldehyde, ammonia, and H ₂ O ₂ . The enzyme is sensitive to inhibition by semicarbazide. Aoc3 expression is highest in the endothelium of lung, heart, and intestine, but low in tissues such as brain, spleen, kidney, and liver.
Form	Supplied as a 0.2 µm filtered solution in Tris and NaCl.
N-terminal Sequence	Met
Molecular Weight	85 kDa

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Activity	Measured by its ability to produce hydrogen peroxide during the oxidation of benzylamine. The specific activity is > 10 pmoles/min/μg, as measured under the described conditions.
Endotoxin Level	< 1.0 EU per 1 μg of the protein by the LAL method.
SDS-PAGE	80-90 kDa, reducing conditions.
Purity	> 95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain at 5 μg per lane.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -70°C as supplied. 3 months, -70°C under sterile conditions after opening.

GENE INFORMATION

Gene Name	Aoc3 amine oxidase, copper-containing 3 [<i>Mus musculus</i>]
Official Symbol	Aoc3
Synonyms	Aoc3; amine oxidase, copper containing 3; SSAO; VAP1; membrane primary amine oxidase; VAP-1; copper amine oxidase; vascular adhesion protein 1; semicarbazide-sensitive amine oxidase; EC 1.4.3.21
Gene ID	11754
mRNA Refseq	NM_009675
Protein Refseq	NP_033805

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Chromosome Location	11; 11 B2-B5
Pathway	Glycine; Metabolic pathways; Phenylalanine metabolism; Tyrosine metabolism; beta-Alanine metabolism; beta-alanine biosynthesis I; threonine degradation III (to methylglyoxal)
Function	aliphatic-amine oxidase activity; aminoacetone:oxygen oxidoreductase (deaminating) activity; calcium ion binding; cation channel activity; copper ion binding; metal ion binding; oxidoreductase activity; phenethylamine:oxygen oxidoreductase (deaminating) activity; primary amine oxidase activity; protein homodimerization activity; quinone binding; tryptamine:oxygen oxidoreductase (deaminating) activity
PDB rendering based on 1pu4.	