

HAO1 Mouse mAb

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Catalog # AP94096

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9WU19
Reactivity	Rat, Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	41001
Physical State	Liquid
Immunogen	Recombinant mouse HAO1 Protein
Epitope Specificity	full length
Isotype	IgG
Purity	affinity purified by Protein G
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Peroxisome.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	GOX is a 370 amino acid protein that is expressed in liver and pancreas. HAO1 is localized to peroxisomes and aids in organic acid metabolism via 2-hydroxyacid oxidase activity. 2-hydroxyacid oxidases, such as HAO1, are enzymes that require a flavin cofactor to oxidize 2-hydroxyacids to 2-ketoacids while reducing oxygen to hydrogen peroxide. HAO1 preferentially oxidizes the substrate glycolate and also oxidizes other substrates, including 2-hydroxy fatty acids as well as L-?hydroxy acids of moderately short chain lengths. The oxidation of glycolate yields glyoxylate which is utilized for peroxisomal synthesis of glycine. HAO1 is also able to convert glyoxylate to oxalate. HAO1 is thought to play a role in the pathophysiology of hyperoxaluria type 1, which is caused by defects in AGXT, a peroxisomal enzyme, leading to accumulation of glyoxylate. Hyperoxaluria type 1 is characterized by an accumulation of oxalate that is thought to lead to precipitates of calcium oxalate in kidneys which can be fatal.

Additional Information

Gene ID	15112
Other Names	2-Hydroxyacid oxidase 1, HAOX1, 1.1.3.15, Glycolate oxidase, GOX, Glyoxylate oxidase, Hao1 {ECO:0000312 MGI:MGI:96011}
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

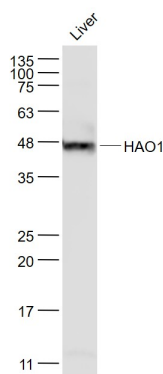
Protein Information

Name	Hao1 {ECO:0000312 MGI:MGI:96011}
Function	Broad substrate specificity (S)-2-hydroxy-acid oxidase that preferentially oxidizes glycolate (PubMed: 9891009). The glyoxylate produced by the oxidation of glycolate can then be utilized by alanine- glyoxylate aminotransferase for the peroxisomal synthesis of glycine; this pathway appears to be an important step for the detoxification of glyoxylate which, if allowed to accumulate, may be metabolized to oxalate with formation of kidney stones (By similarity). Can also catalyze the oxidation glyoxylate, and long chain hydroxyacids such as 2-hydroxyhexadecanoate and 2-hydroxyoctanoate (By similarity). Active in vitro with the artificial electron acceptor 2,6- dichlorophenolindophenol (DCIP), but O ₂ is believed to be the physiological electron acceptor, leading to the production of H ₂ O ₂ (PubMed: 9891009).
Cellular Location	Peroxisome matrix {ECO:0000250 UniProtKB:Q9UJM8}.
Tissue Location	Liver..

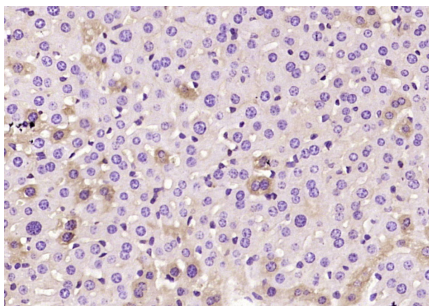
Background

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Images



Sample:
Liver(Rat) Lysate at 40 ug
Primary: Anti- HAO1 (AP94096) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution
Predicted band size: 41 kD
Observed band size: 42 kD



Paraformaldehyde-fixed, paraffin embedded (mouse liver tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HAO1) Monoclonal Antibody, Unconjugated (ascites of AP94096 Mix) at 1:2000 overnight at 4°C, followed by a conjugated secondary (sp-0024) for 20 minutes and DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.