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HAO1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5452

Product Information

Application	WB
Primary Accession	Q9UJM8
Other Accession	Q9WU19
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40924
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	54363
Antigen Region	157-185
Other Names	Hydroxyacid oxidase 1, HAOX1, Glycolate oxidase, GOX, HAO1, GOX1, HAOX1
Dilution	WB~~1:1000
Target/Specificity	This HAO1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 157-185 amino acids from the Central region of human HAO1.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HAO1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HAO1 {ECO:0000303|PubMed:10978532, ECO:0000312|HGNC:HGNC:4809}
Function	Broad substrate specificity (S)-2-hydroxy-acid oxidase that preferentially oxidizes glycolate (PubMed:10777549, PubMed:10978532, PubMed:17669354, PubMed:18215067). 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 (PubMed:10978532, PubMed:17669354). Can also catalyze the oxidation of glyoxylate, and long chain hydroxyacids such as 2-hydroxyhexadecanoate and 2-hydroxyoctanoate, albeit with much lower catalytic efficiency (PubMed:10777549, PubMed:17669354, PubMed:18215067). Active in vitro with the artificial electron acceptor 2,6-dichlorophenolindophenol (DCIP), but O2 is believed to be the physiological electron acceptor, leading to the production of H2O2 (PubMed:10777549, PubMed:10978532, PubMed:17669354, PubMed:18215067). Is not active on L-lactate and 2-hydroxybutanoate (PubMed:10777549).

Cellular Location Peroxisome matrix.

Tissue Location Highly expressed in liver.

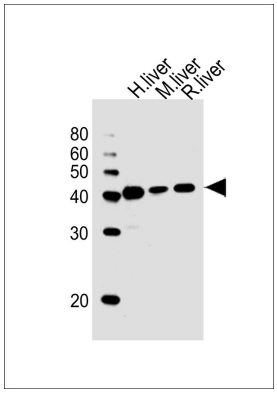
Background

HAO1 is most active on glycolate, a two-carbon substrate. The protein is also active on 2-hydroxy fatty acids.

References

Jones,J.M., et.al., J. Biol. Chem. 275 (17), 12590-12597 (2000)
Kohler,S.A., et.al., J. Biol. Chem. 274 (4), 2401-2407 (1999)

Images



All lanes : Anti-HAO1 Antibody (Center) at 1:1000 dilution Lane 1: human liver lysates Lane 2: mouse liver lysates Lane 3: rat liver lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 41 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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