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HAO1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8605c

Product Information

Application	WB, E
Primary Accession	Q9UJM8
Other Accession	Q9WU19
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22588
Calculated MW	40924
Antigen Region	157-185

Additional Information

Gene ID	54363
Other Names	Hydroxyacid oxidase 1, HAOX1, Glycolate oxidase, GOX, HAO1, GOX1, HAOX1
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.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
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.

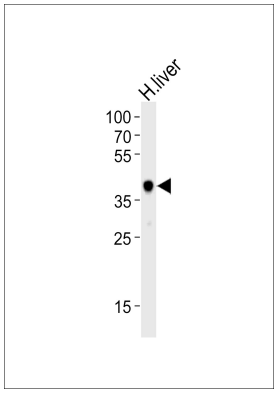
Background

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

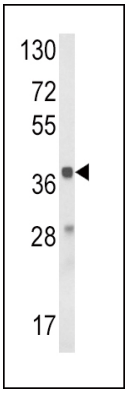
References

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



Western blot analysis of lysate from human liver tissue lysate, using HAO1 Antibody (Center)(Cat. #AP8605c). AP8605c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 35ug.



Western blot analysis of HAO1 Antibody (Center) (Cat. #AP8605c) in mouse liver tissue lysates (35ug/lane). HAO1 (arrow) was detected using the purified Pab.

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