

# **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

HostRabbitClonalityPolyclonalIsotypeRabbit IgGClone NamesRB22588Calculated MW40924Antigen Region157-185

### **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:<u>10777549</u>, PubMed:<u>10978532</u>, PubMed:<u>17669354</u>, PubMed:<u>18215067</u>). 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.

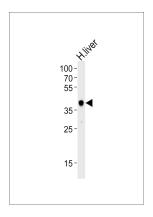
## **Background**

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

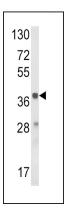
## References

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'.