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# HAO1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8605c

## Product Information

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

## Additional Information

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| **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

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| **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.

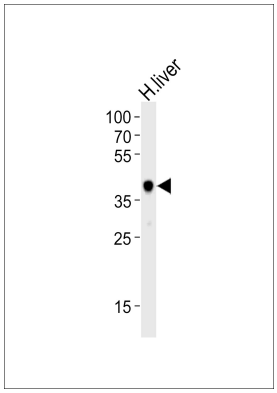
## Background

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

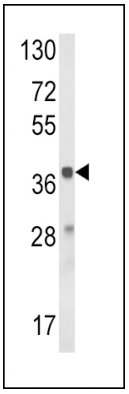
## References

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.