

HAO1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP8605c**Specification**

HAO1 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [O9UJM8](#)**HAO1 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 54363**Other Names**

Hydroxyacid oxidase 1, HAOX1, Glycolate oxidase, GOX, HAO1, GOX1, HAOX1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8605c](/products/AP8605c) was selected from the Center region of human HAO1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

HAO1 Antibody (Center) Blocking Peptide - 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](http://www.uniprot.org/citations/10777549), PubMed: [17669354](http://www.uniprot.org/citations/17669354), PubMed: [18215067](http://www.uniprot.org/citations/18215067), PubMed: [10978532](http://www.uniprot.org/citations/10978532)). 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](http://www.uniprot.org/citations/10978532), PubMed: [17669354](http://www.uniprot.org/citations/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:17669354, PubMed:18215067, PubMed:10978532). Is not active on L-lactate and 2-hydroxybutanoate (PubMed:10777549).

Cellular Location

Peroxisome matrix.

Tissue Location

Highly expressed in liver.

HAO1 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

HAO1 Antibody (Center) Blocking Peptide - Images**HAO1 Antibody (Center) Blocking Peptide - Background**

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

HAO1 Antibody (Center) Blocking Peptide - 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)