10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HAO1 Monoclonal Antibody(Mix)

Catalog # AP63521

Product Information

Application	WB, IHC-P, IF, ICC
Primary Accession	Q9UJM8
Reactivity	Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Calculated MW	40924

Additional Information

Gene ID	54363
Other Names	Hydroxyacid oxidase 1; HAOX1; Glycolate oxidase; GOX
Dilution	WB~~WB: 1:1000-2000 IF 1:200 IHC 1:50-300 IHC-P~~WB: 1:1000-2000 IF 1:200 IHC 1:50-300 IF~~1:50~200 ICC~~N/A
Format	PBS, pH 7.4, containing 0.09% (W/V) sodium azide as Preservative and 50% Glycerol.
Storage Conditions	-20℃

Protein Information

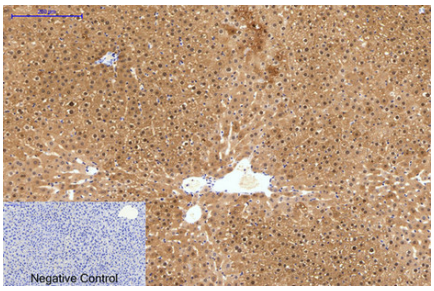
Name	HAO1 {ECO:0000303|PubMed:10978532, ECO:0000312|HGNC:HGNC:4809}
Function	Broad substrate specificity (S)-2-hydroxy-acid oxidase that preferentially oxidizes glycolate (PubMed:10777549, PubMed:10978532, PubMed:17669354, PubMed:18215067). The glyoxylate produced by the oxidation of glycolate can then 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.

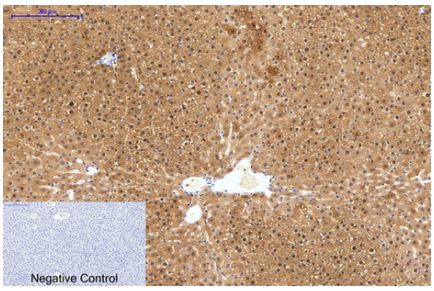
Background

Has 2-hydroxyacid oxidase activity. Most active on the 2-carbon substrate glycolate, but is also active on 2-hydroxy fatty acids, with high activity towards 2-hydroxy palmitate and 2- hydroxy octanoate.

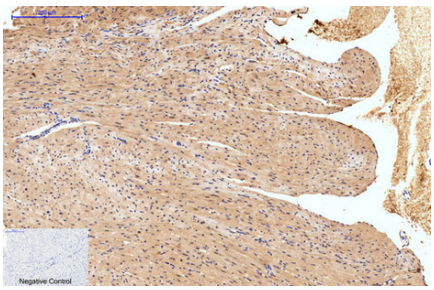
Images



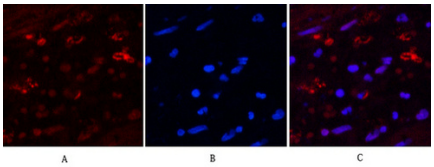
Immunohistochemical analysis of paraffin-embedded Human-liver tissue. 1,HAO1 Monoclonal Antibody(Mix) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



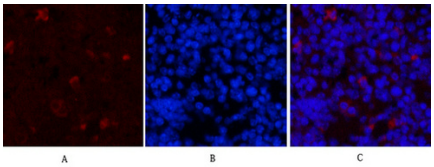
Immunohistochemical analysis of paraffin-embedded Rat-liver tissue. 1,HAO1 Monoclonal Antibody(Mix) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-heart tissue. 1,HAO1 Monoclonal Antibody(Mix) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.

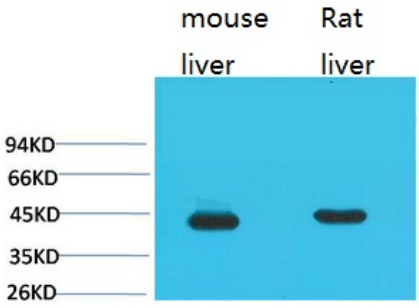


Immunofluorescence analysis of Human-appendix tissue. 1,HAO1 Monoclonal Antibody(Mix)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of Mouse-spleen tissue. 1,HAO1 Monoclonal Antibody(Mix)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

Western blot analysis of 1) Mouse Liver Tissue, 2) Rat Liver Tissue using HAO1 Monoclonal Antibody.



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