Data Sheet (Cat.No.TMAB-06882)

Anti-HAO1 Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse (predicted:Rat,Dog,Pig,Horse,Rabbit)
Molecular Weight:	Theoretical: 41 kDa. Actual: 41 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	1. Paraformaldehyde-fixed, paraffin embedded (human liver carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (HAO1) Polyclonal Antibody, Unconjugated (TMAB-06882) at 1:400 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining. 2. Sample: Liver (Mouse) Lysate at 40 µg Primary: Anti-HAO1 (TMAB-06882) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 41 kD Observed band size: 41 kD
Application:	WB,IHC-P,IHC-Fr,IF
Recommended	WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human GOX/HAO1
Antigen Species:	Human
Gene ID:	54363
Uniprot ID:	Q9UJM8

Research Background

GOX is a 370 amino acid protein that is expressed in liver and pancreas. HAO1 is localized to peroxisomes and aids in organic acid metabolism via 2-hydroxyacid oxidase activity. 2-hydroxyacid oxidases, such as HAO1, are enzymes that require a flavin cofactor to oxidize 2-hydroxyacids to 2-ketoacids while reducing oxygen to hydrogen peroxide. HAO1 prefenentially oxidizes the substrate glycolate and also oxidizes other substrates, including 2-hydroxy fatty acids as well as L-?hydroxy acids of moderately short chain lengths. The oxidation of glycolate yields glyoxylate which is utilized for peroxisomal synthesis of glycine. HAO1 is also able to convert glyoxylate to oxalate. HAO1 is thought to play a role in the pathophysiology of hyperoxaluria type 1, which is caused by defects in AGXT, a peroxisomal enzyme, leading to accumulation of glyoxylate. Hyperoxaluria type 1 is characterized by an

accumulation of oxalate that is thought to lead to precipitates of calcium oxalate in kidneys which can be fatal.

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