

Anti-HOGA1 Antibody Picoband®

Catalog Number: A08669

About HOGA1

The authors of PMID:20797690 cloned this gene while searching for genes in a region of chromosome 10 linked to primary hyperoxalurea type III. They noted that even though the encoded protein has been described as a mitochondrial dihydrodipicolinate synthase-like enzyme, it shares little homology with E. coli dihydrodipicolinate synthase (Dhdps), particularly in the putative substrate-binding region. Moreover, neither lysine biosynthesis nor sialic acid metabolism, for which Dhdps is responsible, occurs in vertebrate mitochondria. They propose that this gene encodes mitochondrial 4-hydroxyl-2-oxoglutarate aldolase (EC 4.1.3.16), which catalyzes the final step in the metabolic pathway of hydroxyproline, releasing glyoxylate and pyruvate. This gene is predominantly expressed in the liver and kidney, and mutations in this gene are found in patients with primary hyperoxalurea type III. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene.

Overview

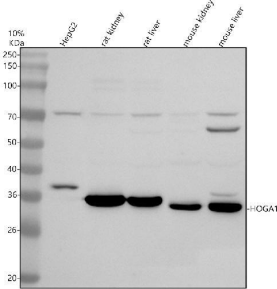
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|----------------------|---|
| Product Name | Anti-HOGA1 Antibody Picoband® |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-HOGA1 Antibody Picoband® catalog # A08669. Tested in WB, IHC, ICC, IF, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Application | ELISA, IF, IHC, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ . |
| Storage Instructions | At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing. |
| Host | Rabbit |
| Uniprot ID | Q86XE5 |

Technical Details

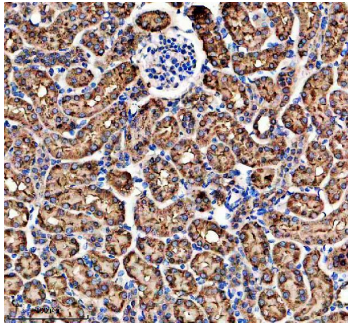
| | |
|---------------------|---|
| Immunogen | E.coli-derived human HOGA1 recombinant protein (Position: K31-A221). |
| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat |

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| | Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human ELISA, 0.1-0.5 ug/ml |
|--|---|

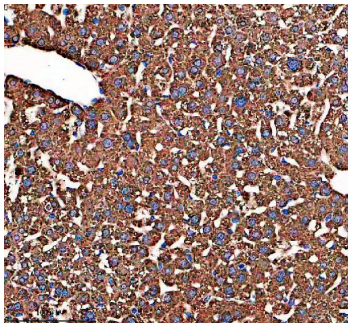
Anti-HOGA1 Antibody Picoband® (A08669) Images



Western blot analysis of HOGA1 using anti-HOGA1 antibody (A08669). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HepG2 whole cell lysates, Lane 2: rat kidney tissue lysates, Lane 3: rat liver tissue lysates, Lane 4: mouse kidney tissue lysates, Lane 5: mouse liver tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HOGA1 antigen affinity purified polyclonal antibody (A08669) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for HOGA1 at approximately 35 kDa. The expected band size for HOGA1 is at 35 kDa.

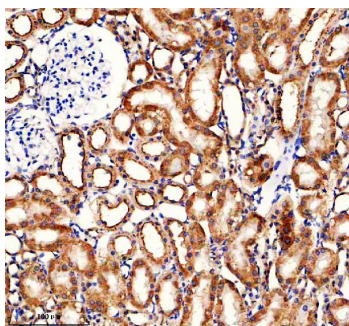


IHC analysis of HOGA1 using anti-HOGA1 antibody (A08669). HOGA1 was detected in a paraffin-embedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-HOGA1 Antibody (A08669) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

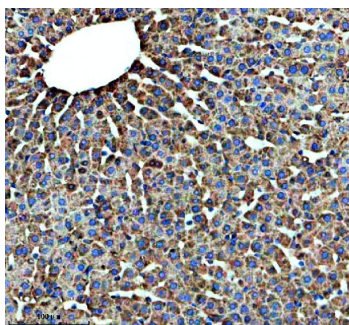


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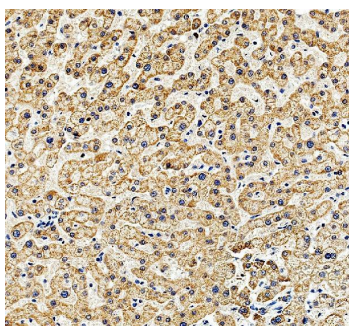
IHC analysis of HOGA1 using anti-HOGA1 antibody (A08669). HOGA1 was detected in a paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat



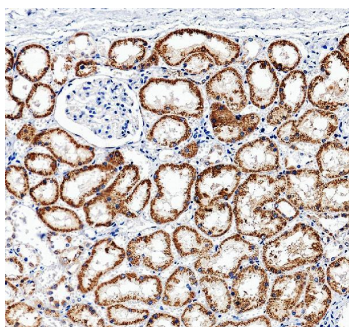
serum. The tissue section was then incubated with 2 ug/ml rabbit anti-HOGA1 Antibody (A08669) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



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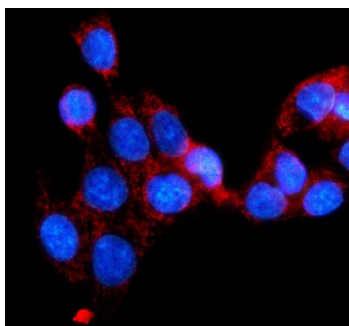


IHC analysis of HOGA1 using anti-HOGA1 antibody (A08669). HOGA1 was detected in a paraffin-embedded section of human liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-HOGA1 Antibody (A08669) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



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IF analysis of HOGA1 using anti-HOGA1 antibody (A08669) and anti-Alpha Tubulin antibody (M03989-3). HOGA1 was detected in an immunocytochemical section of HepG2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with



5 ug/mL rabbit anti-HOGA1 Antibody (A08669) and mouse anti-Alpha Tubulin antibody (M03989-3) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and Fluoro488 Conjugated Goat Anti-Mouse IgG (BA1126) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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Anti-HOGA1 Antibody

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