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Anti-Glycine decarboxylase/GLDC Antibody Picoband™ (monoclonal, 3D3D3)

Catalog # ABO16585

Specification

Anti-Glycine decarboxylase/GLDC Antibody Picoband™ (monoclonal, 3D3D3) - Product Information

Application	**WB, IHC**
Primary Accession	P23378
Host	**Mouse**
Isotype	**Mouse IgG1**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-Glycine decarboxylase/GLDC Antibody Picoband™ (monoclonal, 3D3D3) . Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.

Reconstitution
Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Anti-Glycine decarboxylase/GLDC Antibody Picoband™ (monoclonal, 3D3D3) - Additional Information

Gene ID 2731

Other Names
Glycine dehydrogenase (decarboxylating), mitochondrial, 1.4.4.2, Glycine cleavage system P protein, Glycine decarboxylase, Glycine dehydrogenase (aminomethyl-transferring), GLDC (HGNC:4313)

Calculated MW
113 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat
 Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

Immunogen
E.coli-derived human Glycine decarboxylase/GLDC recombinant protein (Position: K574-S1020).

Purification
Immunogen affinity purified.

Storage	**At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month.**

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It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.

Anti-Glycine decarboxylase/GLDC Antibody Picoband™ (monoclonal, 3D3D3) - Protein Information

Name GLDC (HGNC:4313)

Function
The glycine cleavage system catalyzes the degradation of glycine. The P protein (GLDC) binds the alpha-amino group of glycine through its pyridoxal phosphate cofactor; CO(2) is released and the remaining methylamine moiety is then transferred to the lipoamide cofactor of the H protein (GCSH).

Cellular Location
Mitochondrion.

Anti-Glycine decarboxylase/GLDC Antibody Picoband™ (monoclonal, 3D3D3) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Glycine decarboxylase/GLDC Antibody Picoband™ (monoclonal, 3D3D3) - Images

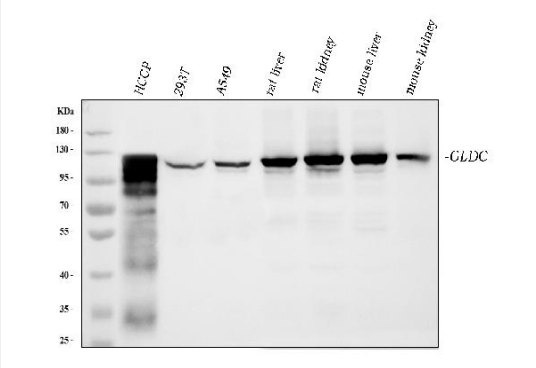

Figure 1. Western blot analysis of GLDC using anti-GLDC antibody (M04777).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HCCP tissue lysates,
Lane 2: human 293T whole cell lysates,
Lane 3: human A549 whole cell lysates,
Lane 4: rat liver tissue lysates,

Lane 5: rat kidney tissue lysates,
Lane 6: mouse liver tissue lysates,
Lane 7: mouse kidney 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 mouse anti-GLDC antigen affinity purified monoclonal antibody (Catalog # M04777) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for GLDC at approximately 113 kDa. The expected band size for GLDC is at 113 kDa.

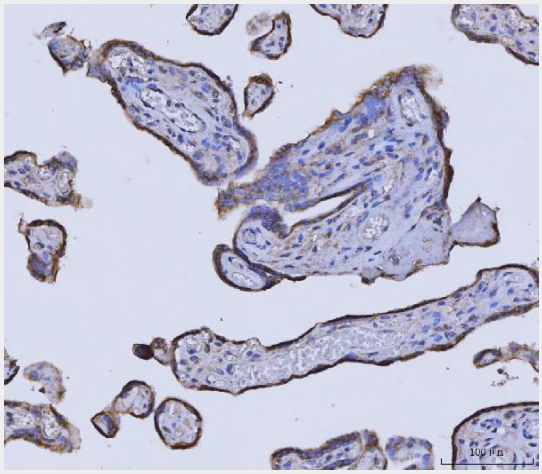

Figure 2. IHC analysis of GLDC using anti-GLDC antibody (M04777).
GLDC was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-GLDC Antibody (M04777) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

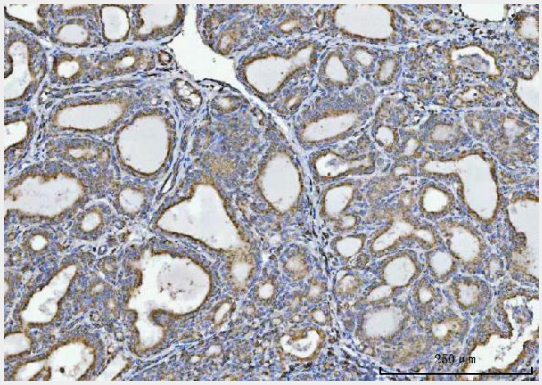

Figure 3. IHC analysis of GLDC using anti-GLDC antibody (M04777).
GLDC was detected in a paraffin-embedded section of human thyroiditis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-GLDC Antibody (M04777) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

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Anti-Glycine decarboxylase/GLDC Antibody Picoband™ (monoclonal, 3D3D3) - Background

Glycine decarboxylase also known as glycine cleavage system P protein or glycine dehydrogenase is an enzyme that in humans is encoded by the GLDC gene. Degradation of glycine is brought about by the glycine cleavage system, which is composed of four mitochondrial protein components: P protein (a pyridoxal phosphate-dependent glycine decarboxylase), H protein (a lipoic acid-containing protein), T protein (a tetrahydrofolate-requiring enzyme), and L protein (a lipoamide dehydrogenase). The protein encoded by this gene is the P protein, which binds to glycine and enables the methylamine group from glycine to be transferred to the T protein. Defects in this gene are a cause of nonketotic hyperglycinemia (NKH).