

Anti-DHODH Antibody Picoband® (monoclonal, 2G7)

Catalog Number: M04035-1

About DHODH

Dihydroorotate dehydrogenase (DHODH) is an enzyme that in humans is encoded by the DHODH gene on chromosome 16. The protein encoded by this gene catalyzes the fourth enzymatic step, the ubiquinone-mediated oxidation of dihydroorotate to orotate, in de novo pyrimidine biosynthesis. This protein is a mitochondrial protein located on the outer surface of the inner mitochondrial membrane.

Overview

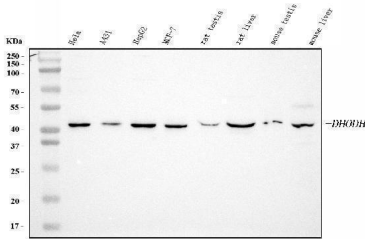
Product Name	Anti-DHODH Antibody Picoband® (monoclonal, 2G7)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-DHODH Antibody Picoband® (monoclonal, 2G7) catalog # M04035-1. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is 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	IHC, WB
Clonality	Monoclonal 2G7
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 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	Mouse
Uniprot ID	Q02127

Technical Details

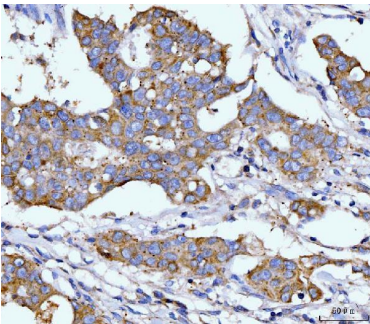
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human DHODH, different from the related mouse sequence by four amino acids, and from the related rat sequence by two amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2b
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human

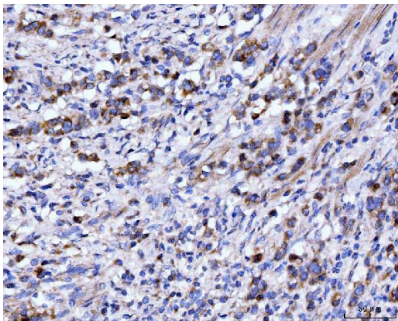
Anti-DHODH Antibody Picoband® (monoclonal, 2G7) (M04035-1) Images



Western blot analysis of DHODH using anti-DHODH antibody (M04035-1). 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 HeLa whole cell lysates, Lane 2: human A431 whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: rat testis tissue lysates, Lane 6: rat liver tissue lysates, Lane 7: mouse testis tissue lysates, Lane 8: 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 mouse anti-DHODH antigen affinity purified monoclonal antibody (Catalog # M04035-1) 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-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 DHODH at approximately 43 kDa. The expected band size for DHODH is at 43 kDa.

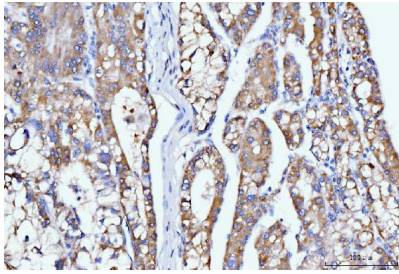


IHC analysis of DHODH using anti-DHODH antibody (M04035-1). DHODH was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-DHODH Antibody (M04035-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

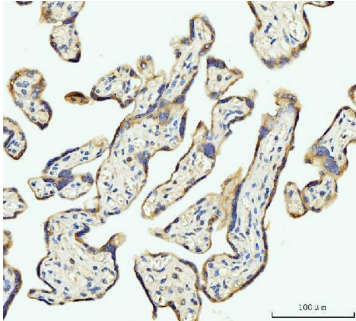


IHC analysis of DHODH using anti-DHODH antibody (M04035-1). DHODH was detected in a paraffin-embedded section of human gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-DHODH Antibody (M04035-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

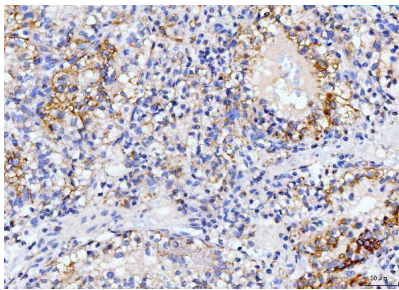
IHC analysis of DHODH using anti-DHODH antibody (M04035-1). DHODH was detected in a paraffin-embedded



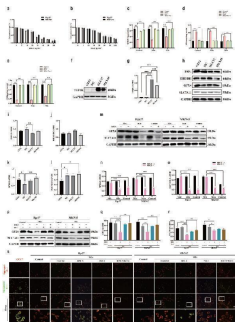
section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-DHODH Antibody (M04035-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



IHC analysis of DHODH using anti-DHODH antibody (M04035-1). DHODH 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 ug/ml mouse anti-DHODH Antibody (M04035-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



IHC analysis of DHODH using anti-DHODH antibody (M04035-1). DHODH was detected in a paraffin-embedded section of human renal carcinoma 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 mouse anti-DHODH Antibody (M04035-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



M2c macrophages increase ferroptosis resistance in gastric cancer cells. a The CCK-8 method was used to detect the survival of gastric cancer cells (Hgc27 and MKN45) intervened with RSL3 for 24 h. b The CCK-8 method was used to detect the survival of gastric cancer cells (Hgc27 and MKN45) intervened with Fer-1 for 24 h. c The expression of SOD in different intervention groups. d The expression of MDA in different intervention groups. e The expression of GSH in different intervention groups. f The expression of TGFbeta1 protein WB in different cell lines. g The expression results of TGFbeta1 protein. h The expression of key ferroptosis proteins WB in different cell lines. i The expression results of FSP1 protein. j Expression results of DHODH protein. k Expression results of GPX4 protein. l SLC7A11 protein expression results. m The intervention of RSL3 on the expression of key ferroptosis protein WB in different co culture groups. n The expression results of GPX4 protein. o SLC7A11 protein expression results. p The WB expression of key proteins involved in ferroptosis in different intervention groups. q The expression results of GPX4

protein. r The expression results of SLC7A11 protein. s
Fluorescence results of mitochondrial membrane potential in
different intervention groups. Scale bar=50 um. *p

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Anti-DHODH Antibody (monoclonal, 2G7)

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