

Anti-IDH2 Picoband Antibody

Catalog # ABO12288

Product Information

Application	WB, IHC, IHC-P, IHC-F, IC, ICC
Primary Accession	P48735
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Isocitrate dehydrogenase [NADP], mitochondrial(IDH2) detection. Tested with WB, IHC-P, IHC-F in Human; Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3418
Other Names	Isocitrate dehydrogenase [NADP], mitochondrial, IDH, 1.1.1.42, ICD-M, IDP, NADP(+)-specific ICDH, Oxalosuccinate decarboxylase, IDH2
Calculated MW	50909
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, By Heat Immunohistochemistry(Frozen Section) 0.5-1 µg/ml Western blot, 0.1-0.5 µg/ml
Subcellular Localization	Mitochondrion.
Source	Eukaryota
Protein Name	Isocitrate dehydrogenase [NADP], mitochondrial
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human IDH2 (413-447aa KDLGCIHGLSNVKLNEHFLNTTDFLDTIKSNLDR), identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated

freezing and thawing.

Protein Information

Name	IDH2
Function	Plays a role in intermediary metabolism and energy production (PubMed: 19228619 , PubMed: 22416140). It may tightly associate or interact with the pyruvate dehydrogenase complex (PubMed: 19228619 , PubMed: 22416140).
Cellular Location	Mitochondrion {ECO:0000250 UniProtKB:P33198}.

Background

Isocitrate dehydrogenase [NADP], mitochondrial is an enzyme that in humans is encoded by the IDH2 gene. Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the mitochondria. It plays a role in intermediary metabolism and energy production. This protein may tightly associate or interact with the pyruvate dehydrogenase complex. Alternative splicing results in multiple transcript variants.

Images

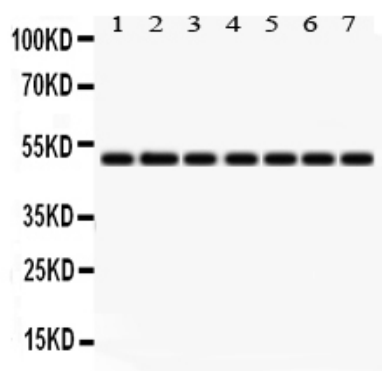
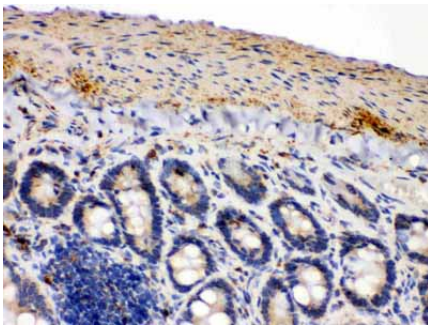


Figure 1. Western blot analysis of IDH2 using anti-IDH2 antibody (ABO12288). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Rat Cardiac Muscle Tissue Lysate, Lane 2: Rat Liver Tissue Lysate, Lane 3: NIH3T3 Whole Cell Lysate, Lane 4: SW620 Whole Cell Lysate, Lane 5: HELA Whole Cell Lysate, Lane 6: MCF-7 Whole Cell Lysate, Lane 7: 22RV1 Whole Cell Lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-IDH2 antigen affinity purified polyclonal antibody (Catalog # ABO12288) at 0.5 μ g/mL overnight at 4 $^{\circ}$ 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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for IDH2 at approximately 51KD. The expected band size for IDH2 is at 51KD.

Figure 2. IHC analysis of IDH2 using anti-IDH2 antibody (ABO12288). IDH2 was detected in paraffin-embedded section of Mouse Intestine Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope



retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-IDH2 Antibody (ABO12288) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

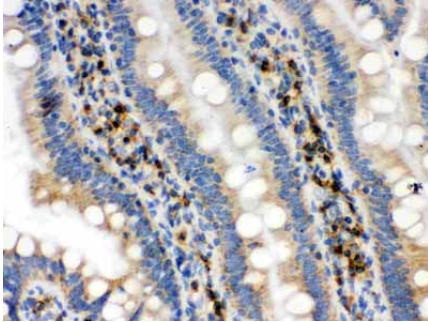


Figure 3. IHC analysis of IDH2 using anti-IDH2 antibody (ABO12288).IDH2 was detected in paraffin-embedded section of Rat Intestine Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-IDH2 Antibody (ABO12288) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

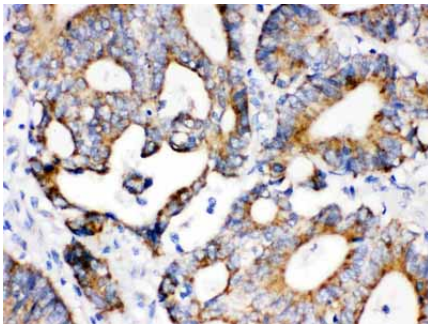


Figure 4. IHC analysis of IDH2 using anti-IDH2 antibody (ABO12288).IDH2 was detected in paraffin-embedded section of Human Intestinal Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-IDH2 Antibody (ABO12288) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

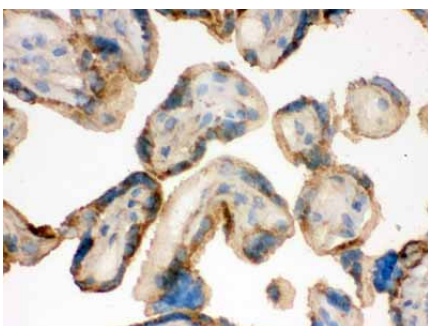
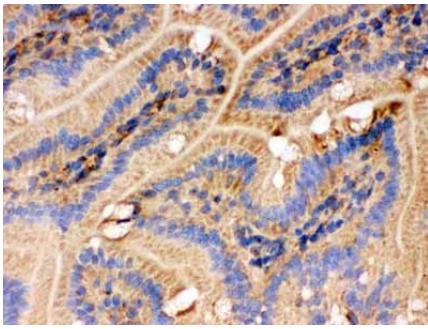


Figure 5. IHC analysis of IDH2 using anti-IDH2 antibody (ABO12288).IDH2 was detected in frozen section of human placenta tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-IDH2 Antibody (ABO12288) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Figure 6. IHC analysis of IDH2 using anti-IDH2 antibody (ABO12288).IDH2 was detected in frozen section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-IDH2 Antibody (ABO12288) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and



incubated for 30 minutes at 37 °C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

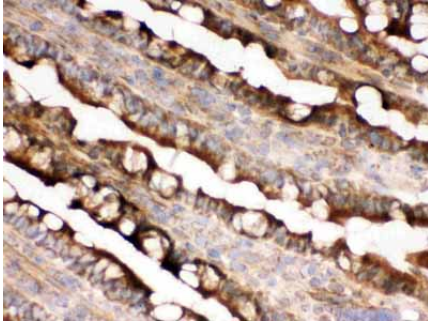


Figure 7. IHC analysis of IDH2 using anti-IDH2 antibody (ABO12288). IDH2 was detected in frozen section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml rabbit anti-IDH2 Antibody (ABO12288) overnight at 4 °C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 °C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

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