

IDH1 Polyclonal Antibody | anti-IDH1 antibody

Anti-IDH1 Antibody

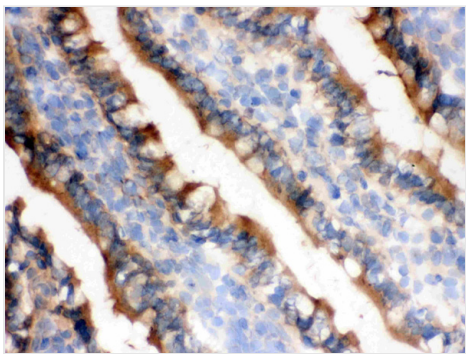
CATALOG # AAA46338	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

IDH1; Polyclonal Antibody; Anti-IDH1 Antibody; Isocitrate dehydrogenase [NADP] cytoplasmic; Cytosolic NADP isocitrate dehydrogenase; Cytosolic NADP-isocitrate dehydrogenase; Epididymis luminal protein 216; Epididymis secretory protein Li 26; HEL-216; HEL-S-26; ICDH; IDCD; IDH; IDHC_HUMAN; IDP; IDPC; Isocitrate dehydrogenase 1 (NADP+) soluble; NADP dependent isocitrate dehydrogenase cytosolic; NADP dependent isocitrate dehydrogenase peroxisomal; NADP(+)-specific ICDH; Oxalosuccinate decarboxylase; PICD; isocitrate dehydrogenase 1 (NADP+); soluble; anti-IDH1 antibody

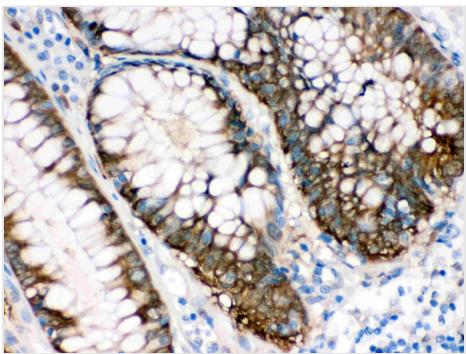
PRODUCT SPECIFICATIONS

Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized. Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Sequence Length	414
Applicable Applications for anti-IDH1 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human IDH1 (381-413aa KGLPNVQRSDYLNTFEFMDKLGENLKIKLAQAK), different from the related mouse and rat sequences by one amino acid.
Ig Type	Rabbit IgG
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Preparation and Storage	At -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquoted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



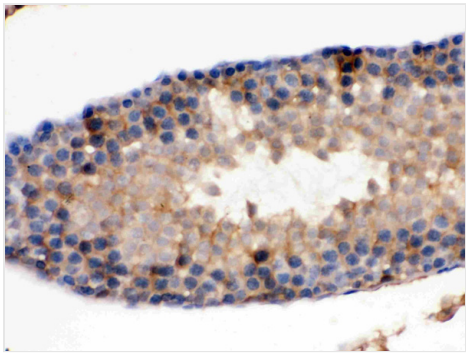
IHC (Immunohistochemistry)

Figure 5. IHC analysis of IDH1 using anti-IDH1 antibody (AAA46338).IDH1 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 1ug/ml rabbit anti-IDH1 Antibody (AAA46338) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



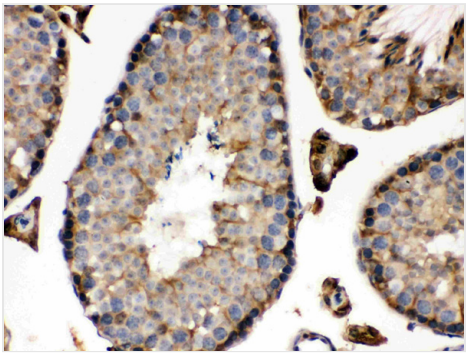
IHC (Immunohistochemistry)

Figure 4. IHC analysis of IDH1 using anti-IDH1 antibody (AAA46338).IDH1 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 1ug/ml rabbit anti-IDH1 Antibody (AAA46338) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



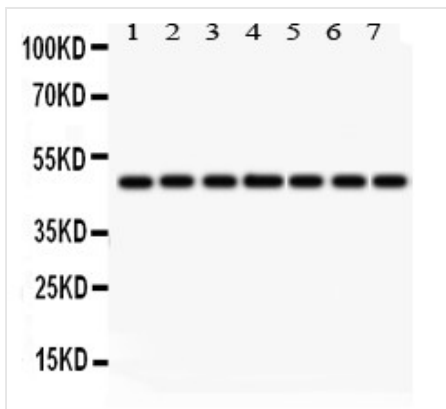
IHC (Immunohistochemistry)

Figure 3. IHC analysis of IDH1 using anti-IDH1 antibody (AAA46338).IDH1 was detected in paraffin-embedded section of Rat Testis 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 1ug/ml rabbit anti-IDH1 Antibody (AAA46338) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of IDH1 using anti-IDH1 antibody (AAA46338).IDH1 was detected in paraffin-embedded section of Mouse Testis 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 1ug/ml rabbit anti-IDH1 Antibody (AAA46338) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)
 Figure 1. Western blot analysis of IDH1 using anti-IDH1 antibody (AAA46338). 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 Lung Tissue Lysate, Lane 2: Rat Kidney Tissue Lysate, Lane 3: Rat Brain Tissue Lysate, Lane 4: HELA Whole Cell Lysate, Lane 5: SMMC Whole Cell Lysate, Lane 6: A549 Whole Cell Lysate, Lane 7: NIH3T3 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-IDH1 antigen affinity purified polyclonal antibody at 0.5ug/mL overnight at 4 degree 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 IDH1 at approximately 47KD. The expected band size for IDH1 is at 47KD.

ADDITIONAL INFORMATION

Related Product Information for anti-IDH1 antibody	Description: Rabbit IgG polyclonal antibody for Isocitrate dehydrogenase [NADP] cytoplasmic(IDH1) detection. Tested with WB, IHC-P in Human;Mouse; Rat. Background: Isocitrate dehydrogenase 1 (NADP+), soluble is an enzyme that in humans is encoded by the IDH1 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 cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. Alternatively spliced transcript variants encoding the same protein have been found for this gene.
References	1. "Entrez Gene: Isocitrate dehydrogenase 1 (NADP+), soluble". 2. Watanabe T, Nobusawa S, Kleihues P, Ohgaki H (April 2009). "IDH1 mutations are early events in the development of astrocytomas and oligodendrogliomas.". Am J Pathol. 174 issue = 4 (4): 1149-53.

NCBI AND UNIPROT INFORMATION

NCBI GI #	538917488
NCBI GeneID	3417
NCBI Accession #	NP_001269315.1
NCBI GenBank Nucleotide #	NM_001282386.1
UniProt Accession #	O75874; Q567U4; Q6FHQ6; Q7Z3V0; Q93090; Q9NTJ9; Q9UKW8
Molecular Weight	46,659 Da

NCBI Official Full Name	isocitrate dehydrogenase
NCBI Official Synonym Full Names	isocitrate dehydrogenase (NADP(+)) 1, cytosolic
NCBI Official Symbol	IDH1
NCBI Official Synonym Symbols	IDH; IDP; IDCD; IDPC; PICD; HEL-216; HEL-S-26
NCBI Protein Information	isocitrate dehydrogenase [NADP] cytoplasmic
UniProt Protein Name	Isocitrate dehydrogenase [NADP] cytoplasmic
UniProt Gene Name	IDH1
UniProt Synonym Gene Names	PICD; IDH
UniProt Entry Name	IDHC_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/idh1-antibody-immunohistochemistry-western-blot-elisa/46338>