Data Sheet (Cat.No.TMAC-02246)

Anti-Isocitrate dehydrogenase/IDH1 Antibody (9Q57)

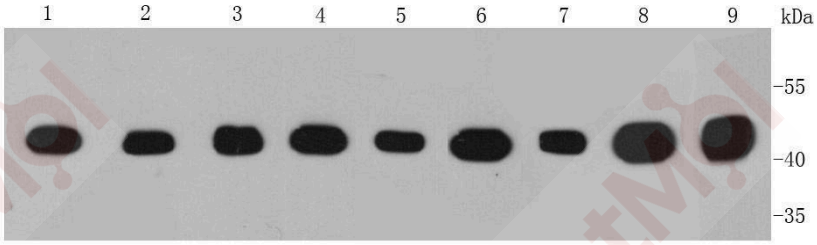
Product Details

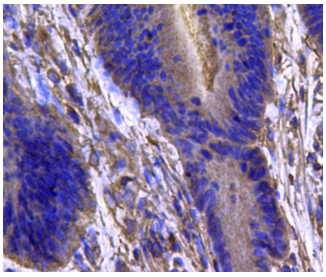
Reactivity:	Human,zebrafish
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 47 kDa.
Clone:	9Q57
Purification:	ProA affinity purified

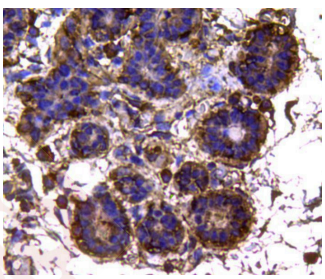
Applications

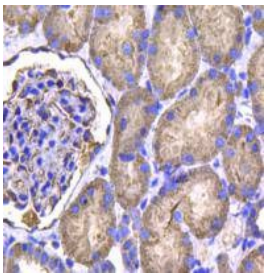
Verified Activity:

1. Western blot analysis of IDH1 on different cell lysates using anti-IDH1 antibody at 1/1000 dilution. Positive control: Lane 1: Hela, Lane 2: HepG2, Lane 3: A431, Lane 4: MCF-7, Lane 5: A549, Lane 6: Jurkat, Lane 7: Human kidney, Lane 8: Human brain, Lane 9: Human liver.
2. Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using anti-IDH1 antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded human breast tissue using anti-IDH1 antibody. Counter stained with hematoxylin.
4. Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-IDH1 antibody. Counter stained with hematoxylin.









Application:	IHC,WB
Recommended	WB: 1:1000; IHC: 1:100-200

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein
Uniprot ID:	O75874
Synonyms:	IDPC;IDP;IDH;IDCD;HEL-216;isocitrate dehydrogenase 1 (NADP+), soluble;PICD;HEL-S-26

Research Background

Isocitrate dehydrogenase (IDH) is an enzyme that catalyzes the oxidative decarboxylation of isocitrate, producing alpha-ketoglutarate (α-ketoglutarate) and CO2. In humans, IDH exists in three isoforms: IDH3 catalyzes the third step of the citric acid cycle while converting NAD+ to NADH in the mitochondria. The isoforms IDH1 and IDH2 catalyze the same reaction outside the context of the citric acid cycle and use NADP+ as a cofactor instead of NAD+. They localize to the cytosol as well as the mitochondrion and peroxisome. Mutations in IDH1 are also implicated in cancer. Originally mutations in IDH1 were detected in an integrated genomic analysis of human glioblastoma multiforme. In addition to being mutated in diffuse gliomas, IDH1 has also been shown to harbor mutations in human acute myeloid leukemia (AML).

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