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Product datasheet for TA800406

Isocitrate dehydrogenase (IDH1) Mouse Monoclonal Antibody [Clone ID: OTI3G9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI3G9
Applications:	IHC, WB
Recommend Dilution:	WB 1:2000, IHC 1:150
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Synthetic peptide around the R132H mutation region of the human IDH conjugated to KLH
Formulation:	PBS (PH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	1 mg/ml
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Predicted Protein Size:	46.5 kDa
Gene Name:	isocitrate dehydrogenase (NADP(+)) 1, cytosolic
Database Link:	NP_005887 Entrez Gene 15926 MouseEntrez Gene 24479 RatEntrez Gene 478889 DogEntrez Gene 3417 Human

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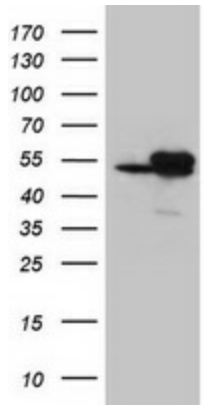
Background: Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent 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. [provided by RefSeq, Jul 2008]

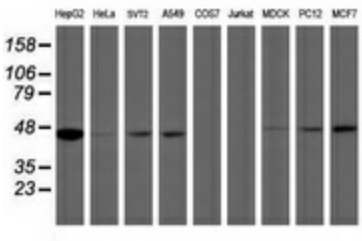
Synonyms: HEL-216; HEL-S-26; IDCD; IDH; IDP; IDPC; PICD

Protein Pathways: Citrate cycle (TCA cycle), Glutathione metabolism, Metabolic pathways

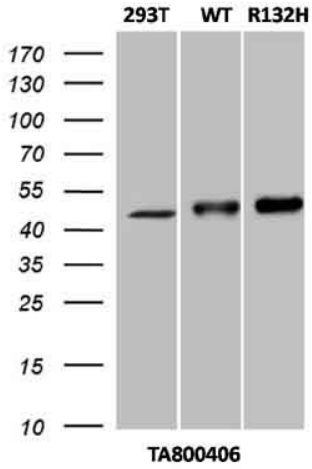
Product images:



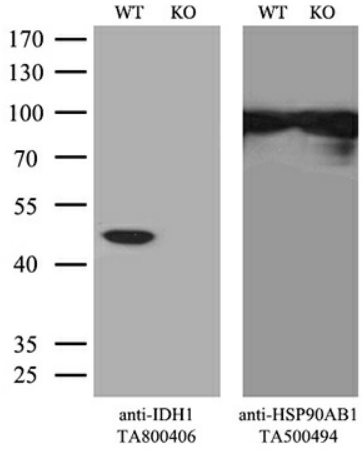
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY IDH1 ([RC210582], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-IDH1. Positive lysates [LY401782] (100ug) and [LC401782] (20ug) can be purchased separately from OriGene.



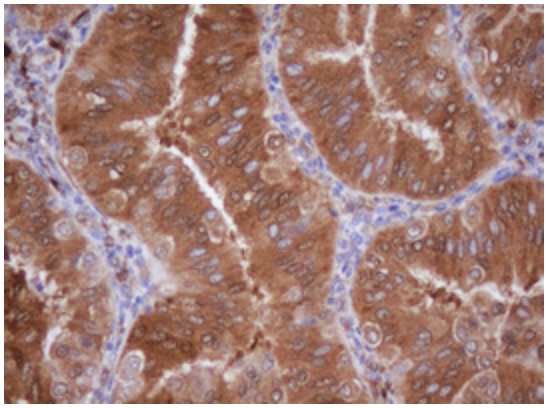
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-IDH1 monoclonal antibody (HepG2: human; HeLa: human; SVT2: mouse; A549: human; COS7: monkey; Jurkat: human; MDCK: canine; PC12: rat; MCF7: human).



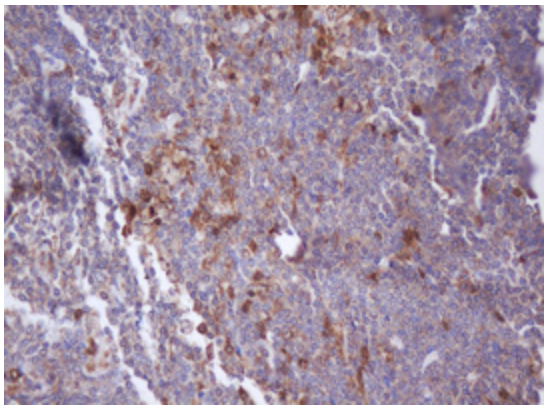
HEK293T cells were either not tranfected (left lane "293T") or transfected with pCMV6-ENTRY IDH1 (wild type-SKU# [RC210582], middle lane "WT") or pCMV6-ENTRY IDH1 mutated (R132H mutation-SKU# [RC400096], right lane "R132H") cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (10 ug per lane) were separated by SDS-PAGE and immunoblotted with TA800406 (1:500) and then goat anti-mouse IgG-HRP (1:2000).



Equivalent amounts of cell lysates (10 ug per lane) of wild-type Hela cells (WT, Cat# LC810HELA) and IDH1-Knockout Hela cells (KO, Cat# [LC810112]) were separated by SDS-PAGE and immunoblotted with anti-IDH1 monoclonal antibody TA800406. Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([TA500494]) as a loading control (1:500).



Immunohistochemical staining of paraffin-embedded Human endometrium tissue within the normal limits using anti-IDH1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, TA800406)



Immunohistochemical staining of paraffin-embedded Human lymphoma tissue using anti-IDH1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, TA800406)