OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for CF800406

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

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI3G9
Applications:	IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:150
Reactivity:	Human, Dog, Rat, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Synthetic peptide around the R132H mutation region of the human IDH conjugated to KLH
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	46.5 kDa
Gene Name:	Homo sapiens isocitrate dehydrogenase (NADP(+)) 1 (IDH1), transcript variant 1, mRNA.
Database Link:	NP_005887 Entrez Gene 15926 MouseEntrez Gene 24479 RatEntrez Gene 478889 DogEntrez Gene 3417 Human O75874

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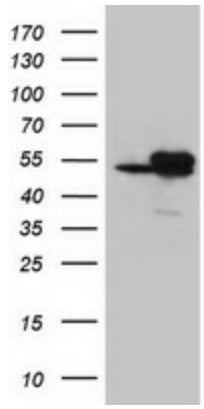
Background: Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent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

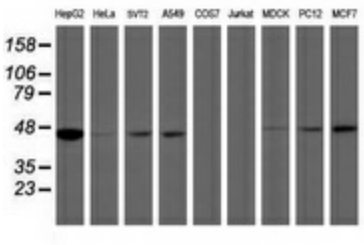
Synonyms: HEL-216; HEL-S-26; IDCD; IDH; IDP; IDPC; PICD

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

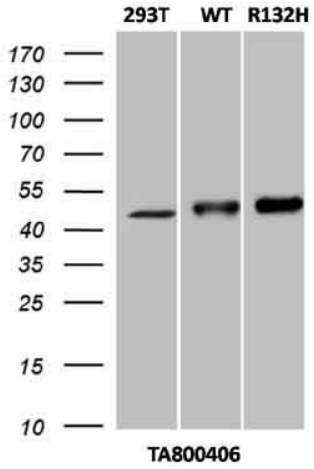
Product images:



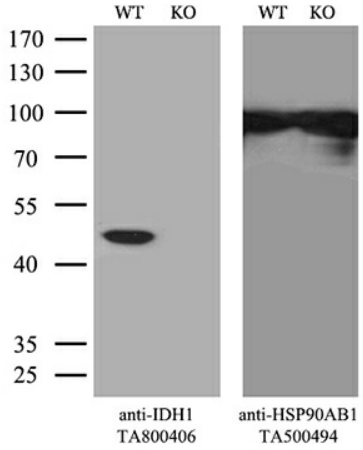
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY IDH1 ([RC210582], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-IDH1. Positive lysates [LY401782] (100ug) and [LC401782]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



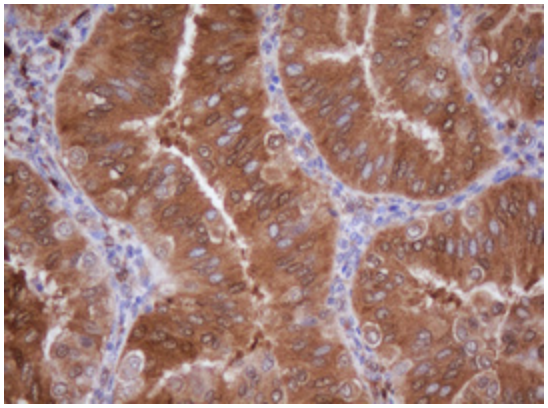
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-IDH1 monoclonal antibody (HepG2: human; HeLa: human; SVT2: mouse; A549: human; COS7: monkey; Jurkat: human; MDCK: canine; PC12: rat; MCF7: human).



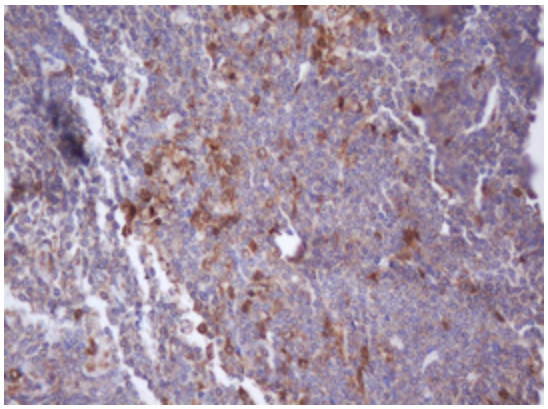
HEK293T cells were either not tranfected (left lane "293T") or transfected with pCMV6-ENTRY IDH1 (wild type-SKU# [RC210582], middle lane "WT") or pCMV6-ENTRY IDH1 mutated (R132H mutation-SKU# [RC400096], right lane "R132H") cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (10 ug per lane) 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])