

Product datasheet for **TA800427AM**

Isocitrate dehydrogenase (IDH1) Mouse Monoclonal Antibody (Biotin conjugated) [Clone ID: OTI1D1]

Product data:

| | |
|-------------------------|--|
| Product Type: | Primary Antibodies |
| Clone Name: | OTI1D1 |
| Applications: | IHC, WB |
| Recommended Dilution: | WB 1:500, IHC 1:150 |
| Reactivity: | Human, Dog, Rat, Monkey, Mouse |
| Host: | Mouse |
| Isotype: | IgG1 |
| Clonality: | Monoclonal |
| Immunogen: | Synthetic peptide around the R132 region of the human IDH conjugated to KLH |
| Formulation: | PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide. |
| Concentration: | 0.5 mg/ml |
| Purification: | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G) |
| Conjugation: | Biotin |
| Storage: | Store at -20°C as received. |
| Stability: | Stable for 12 months from date of receipt. |
| Predicted Protein Size: | 46.5 kDa |
| Gene Name: | isocitrate dehydrogenase (NADP(+)) 1, cytosolic |
| Database Link: | NP_005887 Entrez Gene 15926 Mouse Entrez Gene 24479 Rat Entrez Gene 478889 Dog Entrez Gene 710019 Monkey Entrez 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]

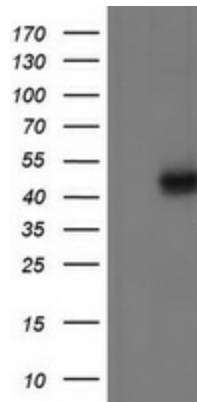
Synonyms:

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

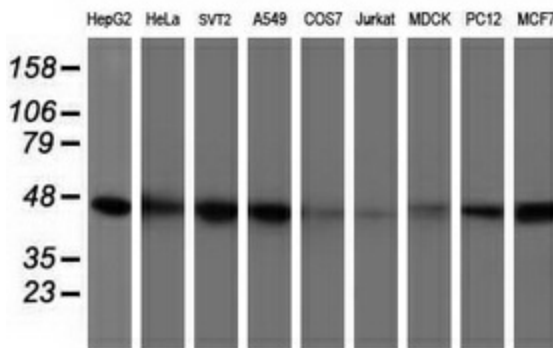
Protein Pathways:

Citrate cycle (TCA cycle), Glutathione metabolism, Metabolic pathways

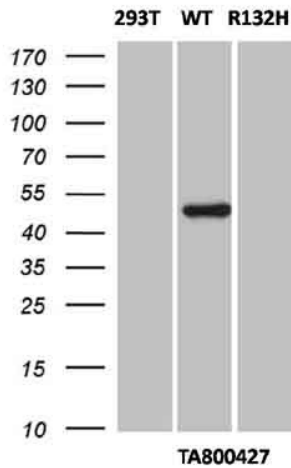
Product images:



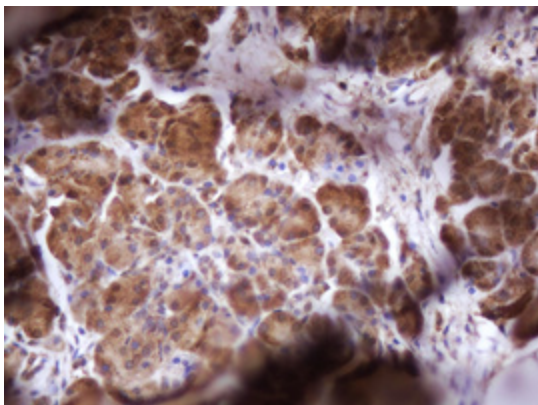
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY IDH1 [RC210582], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-IDH1. Positive lysates [LY401782] (100ug) and [LC401782]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



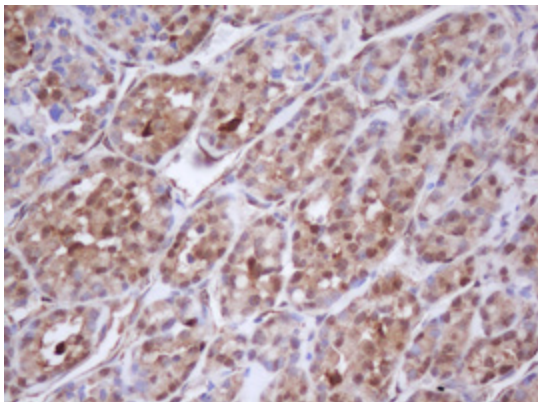
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-IDH1 monoclonal antibody (HepG2: human; HeLa: human; SVT2: mouse; A549: human; COS7: monkey; Jurkat: human; MDCK: canine; PC12: rat; MCF7: human).



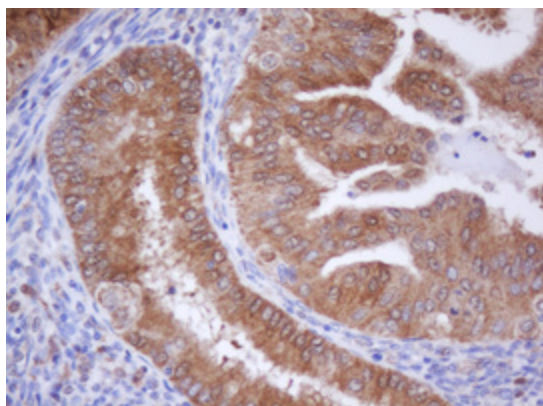
HEK293T cells were either not transfected (left lane "293T") or transfected with pCMV6-ENTRY IDH1 (wild type-SKU# [RC210582], middle lane "WT") or pCMV6-ENTRY IDH1 mutated (R132H mutation-SKU# [RC400096], right lane "R132H") cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (10 ug per lane) were separated by SDS-PAGE and immunoblotted with [TA800427] (1:500) and then goat anti-mouse IgG-HRP (1:2000).



Immunohistochemical staining of paraffin-embedded Human pancreas 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, [TA800427])



Immunohistochemical staining of paraffin-embedded Carcinoma of Human thyroid tissue using anti-IDH1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA800427])



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, [TA800427])