

Product datasheet for **TA800426**

Isocitrate dehydrogenase (IDH1) Mouse Monoclonal Antibody [Clone ID: OTI24A2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI24A2
Applications:	IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:150
Reactivity:	Human, Dog, Rat, Monkey, Mouse
Host:	Mouse
Isotype:	IgG2b
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:	1 mg/ml
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:	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