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Product datasheet for TA400008

Isocitrate dehydrogenase (IDH1) Mouse Monoclonal Antibody [Clone ID: OTI2H9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI2H9
Applications:	WB
Recommended Dilution:	WB: 1:1000
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full-length protein expressed in 293T cell transfected with human IDH1 expression vector
Formulation:	PBS (pH7.4) containing 50% glycerol, 0.1% BSA and 0.02% NaN3
Concentration:	0.5 mg/ml
Purification:	Purified from mouse ascites fluids by affinity chromatography
Conjugation:	Biotin
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	46.7 kDa
Gene Name:	isocitrate dehydrogenase (NADP(+)) 1
Database Link:	NP_005887 Entrez Gene 3417 Human O75874

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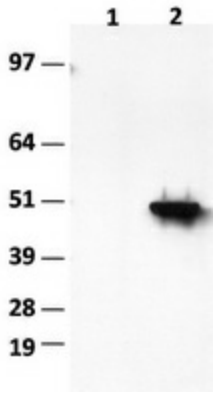
Background: Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent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

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 pCMV6-ENTRY control (Lane 1) or pCMV6-ENTRY IDH1 (Lane 2) plasmid for 48 hrs. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-IDH1-biotin and Streptavidin-HRP.