Recombinant Human IDH3A

Cat. No. IDH3A-28925TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human IDH3A with N-terminal proprietary tag. Mol Wt 66 kDa inclusive of tag.
Species	Human
Source	Wheat Germ
ProteinLength	366 amino acids
Description	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. NAD(+)-dependent isocitrate dehydrogenases catalyze the allosterically regulated rate-limiting step of the tricarboxylic acid cycle. Each isozyme is a heterotetramer that is composed of two alpha subunits, one beta subunit, and one gamma subunit. The protein encoded by this gene is the alpha subunit of one isozyme of NAD(+)-dependent isocitrate dehydrogenase.
Molecular Weight	66.000kDa
Form	Liquid

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Purity	Proprietary Purification
Storage buffer	pH: 8.00Constituents:0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MAGPAWISKVSRLLGAFHNPKQVTRGFTGGVQTVTLIPGD GIGPEISAAVMKIFDAA KAPIQWEERNVTAIQGPGGKWMI PSEAKESMDKNKMGLKGPLKTPIAAGHPSMNLL LRKTFDL YANVRPCVSIEGYKTPYTDVNIVTIRENTEGEYSGIEHVI VDGVVQSIKLIT EGASKRIAEFAFEYARNNHRSNVTAVHK ANIMRMSDGLFLQKCREVAESCKDIKFN EMYLDTVCLNMV QDPSQFDVLVMPNLYGDILSDLCAGLIGGLGVTPSGNIGA NGVA IFESVHGTAPDIAGKDMANPTALLLSAVMMLRHMGL FDHAARIEAACFATIKDGKSL TKDLGGNAKCSDFTEEICR RVKDLD
Sequence Similarities	Belongs to the isocitrate and isopropylmalate dehydrogenases family.

GENE INFORMATION

Gene Name	IDH3A isocitrate dehydrogenase 3 (NAD+) alpha [Homo sapiens]
Official Symbol	IDH3A
Synonyms	IDH3A; isocitrate dehydrogenase 3 (NAD+) alpha; isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial; H IDH alpha; isocitrate dehydrogenase (NAD+) alpha chain; isocitrate dehydrogenase [NAD] subunit alpha; mitochondrial; isocitric dehydrogenase; NA
Gene ID	3419

mRNA Refseq	NM_005530
Protein Refseq	NP_005521
MIM	601149
Uniprot ID	P50213
Chromosome Location	15q25.1-q25.2
Pathway	Citrate cycle (TCA cycle), organism-specific biosystem; Citrate cycle (TCA cycle), conserved biosystem; Citrate cycle, first carbon oxidation, oxaloacetate => 2-oxoglutarate, organism-specific biosystem; Citrate cycle, first carbon oxidation, oxaloacetate =>
Function	NAD binding; isocitrate dehydrogenase (NAD+) activity; magnesium ion binding; oxidoreductase activity; oxidoreductase activity, acting on the CH-OH group of donors, NAD or NADP as acceptor;

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