

Recombinant Human Isocitrate Dehydrogenase 3 (NAD⁺) Gamma, His-tagged

Cat. No. IDH3G-1324H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human IDH3G protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
Species	Human
Source	E.coli
Description	IDH3G, also known as isocitrate dehydrogenase [NAD] subunit gamma, mitochondrial, belongs to the isocitrate and isopropylmalate dehydrogenases family. Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. IDH3G is a gamma subunit of one isozyme of isocitrate dehydrogenase that belongs to a distinct subclass, which utilizes NAD ⁺ as the electron acceptor, and is localised to the mitochondrial matrix.
Form	Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 5 mM DTT, 50% glycerol, 0.2 M NaCl, 2 mM EDTA.
Molecular Weight	41.1 kDa (375 aa), confirmed by MALDI-TOF
Purity	> 85 % by SDS-PAGE
Concentration	0.25 mg/ml (determined by Bradford assay)
Sequences of amino	MGSSHHHHHH SSGLVPRGSH MFSEQTIPPS AKYGGRHTVT MIPGDGIGPE

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acids

LMLHVKS VFR HACVPVDFEE VHVSSNADEE DIRNAIMAIR RNRVALKGN I
 ETNHNLP PSH KSRNNILRTS LDLYANVIHC KSLPGVVTRH KDIDILIVRE
 NTEGEYSSLE HESVAGVVES LKIITKAKSL RIAEYAFKLA QESGRKKVTA
 VHKANIMKLG DGLFLQCCRE VAARYPQITF ENMIVDNTTM QLVSRPQQFD
 VMVMPNLYGN IVNNVCAGLV GGPGLVAGAN YGHVYAVFET ATRNTGKSIA
 NKNIANPTAT LLASCMLLDH LKLHSYATSI RKAVLASMDN ENMHTPDIGG
 QGTTSEAIQD VIRHIRVING RAVEA

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Pathways

Citrate cycle (TCA cycle); Citrate cycle; Citric acid cycle (TCA cycle); Metabolic pathways; Pyruvate metabolism and Citric Acid (TCA) cycle; TCA Cycle

GENE INFORMATION

Gene Name IDH3G isocitrate dehydrogenase 3 (NAD+) gamma [Homo sapiens]

Official Symbol IDH3G

Synonyms IDH3G; isocitrate dehydrogenase 3 (NAD+) gamma; H-IDHG; isocitrate dehydrogenase [NAD] subunit gamma, mitochondrial; IDH-gamma; NAD+-specific ICDH; OTTHUMP00000025984; OTTHUMP00000025985; OTTHUMP00000025987; OTTHUMP00000025988; OTTHUMP00000214764; NAD+-specific ICDH subunit gamma; isocitric dehydrogenase subunit gamma; NAD (H)-specific isocitrate dehydrogenase gamma subunit; isocitrate dehydrogenase, NAD+-specific, mitochondrial, gamma subunit; NP_004126.1; EC 1.1.1.41

Gene ID 3421

mRNA Refseq NM_004135

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Protein Refseq	NP_004126
MIM	300089
UniProt ID	P51553
Chromosome Location	Xq28
Function	ATP binding; 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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