Recombinant Human IDH3G

Cat. No. IDH3G-28079TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human IDH3G with N terminal proprietary tag; Predicted MWt 69.34 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	393 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 gamma subunit of one isozyme of NAD(+)-dependent isocitrate dehydrogenase. This gene is a candidate gene for periventricular heterotopia. Several alternatively spliced transcript variants of this gene have been described, but only some of their full length natures have been determined.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Molecular Weight	69.340kDa inclusive of tags
Form	Liquid
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	MALKVATVAGSAAKAVLGPALLCRPWEVLGAHEVPSRNIF SEQTIPPSAKYGGRHT VTMIPGDGIGPELMLHVKSVFRHA CVPVDFEEVHVSSNADEEDIRNAIMAIRRNRVA LKGNIET NHNLPPSHKSRNNILRTSLDLYANVIHCKSLPGVVTRHKD IDILIVRENTEG EYSSLEHESVAGVVESLKIITKAKSLRI AEYAFKLAQESGRKKVTAVHKANIMKLGDG LFLQCCREVA ARYPQITFENMIVDNTTMQLVSRPQQFDVMVMPNLYGNIV NNVCA GLVGGPGLVAGANYGHVYAVFETATRNTGKSIANK NIANPTATLLASCMMLDHLKL HSYAASIRKAVLASMDNEN MHTPDIGGQGTTSEAIQDVIRHIRVINGRAVEA
Sequence Similarities	Belongs to the isocitrate and isopropylmalate dehydrogenases family.

GENE INFORMATION

Gene Name	IDH3G isocitrate dehydrogenase 3 (NAD+) gamma [Homo sapiens]
Official Symbol	IDH3G
Synonyms	IDH3G; isocitrate dehydrogenase 3 (NAD+) gamma; isocitrate dehydrogenase [NAD] subunit gamma, mitochondrial;

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Gene ID	3421
mRNA Refseq	NM_004135
Protein Refseq	NP_004126
MIM	300089
Uniprot ID	P51553
Chromosome Location	Xq28
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	ATP binding; NAD binding; isocitrate dehydrogenase (NAD+) activity; magnesium ion binding; oxidoreductase activity;

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA