

## Recombinant Full Length Human IDH3G Protein

Cat. No. IDH3G-252HF 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** In Vitro Cell Free System

**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.

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<b>Form</b>	Liquid
<b>Molecular Mass</b>	69.340kDa inclusive of tags
<b>AA Sequence</b>	MALKVATVAGSAAKAVLGPALLCRPWEVLGAHEVPSRNIF SEQTIPPSAKYGGRRHT VTMIPGDGIGPELMLHVKSFRHA CVPVDFEEVHVSSNADEEDIRNAIMAIRNRVA LKGNIET NHNLPPSHKSRNNILRTSLDLYANVIHCKSLPGVVTRHKD IDILIVRENTEG EYSSLEHESVAGVVESLKIITKAKSLRI AEYAFKLAQESGRKKVTAVHKANIMKLGDG LFLQCCREVA ARYPQITFENMIVDNTTMQLVSRPQQFDVMVMPNLYGNIV NNVCA GLVGGPGLVAGANYGHVYAVFETATRNTGKSIANK NIANPTATLLASCMMMLDHLKL HSYAASIRKAVLASMDNEN MHTPDIGGQGTSEAIQDVIRHIRVINGRAVEA
<b>Purity</b>	Proprietary Purification
<b>Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80 centigrade. Avoid freeze / thaw cycles.
<b>Storage Buffer</b>	pH: 8.00. Constituents:0.79% Tris HCl, 0.31% Glutathione.

## GENE INFORMATION

<b>Gene Name</b>	IDH3G isocitrate dehydrogenase 3 (NAD+) gamma [ Homo sapiens ]
<b>Official Symbol</b>	IDH3G
<b>Synonyms</b>	IDH3G; isocitrate dehydrogenase 3 (NAD+) gamma; isocitrate dehydrogenase [NAD] subunit gamma, mitochondrial
<b>Gene ID</b>	3421
<b>mRNA Refseq</b>	NM_004135

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**Protein Refseq** [NP\\_004126](#)

**MIM** [300089](#)

**UniProt ID** [P51553](#)

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