# Recombinant Human Isocitrate dehydrogenase [NAD] subunit gamma, mitochondrial (IDH3G)

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| **Product Code** | CSB-EP010993HU-B |
| **Storage** | Store at -20°C, for extended storage, conserve at -20°C or -80°C. |
| **Uniprot No.** | P51553 |
| **Product Type** | Recombinant Protein |
| **Immunogen Species** | Homo sapiens (Human) |
| **Purity** | >85% (SDS-PAGE) |
| **Sequence** | F SEQTIPPSAK YGGRHTVTMI PGDGIGPELM LHVKSVFRHA CVPVDFEEVH VSSNADEEDI RNAIMAIRRN RVALKGNIET NHNLPPSHKS RNNILRTSLD LYANVIHCKS LPGVVTRHKD IDILIVRENT EGEYSSLEHE SVAGVVESLK IITKAKSLRI AEYAFKLAQE SGRKKVTAVH KANIMKLGDG LFLQCCREVA ARYPQITFEN MIVDNTTMQL VSRPQQFDVM VMPNLYGNIV NNVCAGLVGG PGLVAGANYG HVYAVFETAT RNTGKSIANK NIANPTATLL ASCMMLDHLK LHSYATSIRK AVLASMDNEN MHTPDIGGQG TTSEAIQDVI RHIRVINGRA VEA |
| **Source** | E.coli |
| **Target Names** | IDH3G |
| **Protein Names** | Recommended name: Isocitrate dehydrogenase [NAD] subunit gamma, mitochondrial EC= 1.1.1.41 Alternative name(s): Isocitric dehydrogenase subunit gamma NAD(+)-specific ICDH subunit gamma |
| **Expression Region** | 40-393 |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| **Tag Info** | Tag type will be determined during the manufacturing process. |
| **Protein Length** | Full Length of Mature Protein |
| **Target Details** | 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. This protein 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 |

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| | length natures have been determined. |
| **Reconstitution** | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference. |
| **Shelf Life** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.<br>Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |