

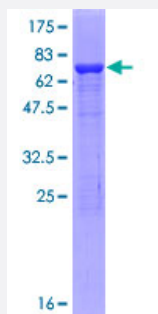
Full-Length

IDH1 (Human) Recombinant Protein (P02)

Catalog # H00003417-P02

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human IDH1 full-length ORF (NP_005887.2, 1 a.a. - 414 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MSKKISGGSVVEMQGDDEMTRIWEELIKEKLIFPYVELDLHSYDLGIENRDATNDQVTKDAAEAIAKKH
NVGVKCATITPDEKRVVEEFKLKQMWKSPNGTIRNLLGGTVFREAIICKNIPRLVSGWVKPIIGRHAYG
DQYRATDFVVPGPVKVEITYTPSDGTQKVITYLVHNFEEGGGVAMGMYNQDKSIEDFAHSSFQMA
LSKGWPLYLSTKNILKKYDGRFKDIFQEYDKQYKSQFEAQKIWEHRLIDDMVAQAMKSEGGFM
ACKNYDGDVQSDSVAQGYGSLGMMTSVLVCPDGKTVEAAAHGTVTRHYRMYQKGQETSTNPI
ASIFAWTRGLAHRKLDNNKELAFFANALEEVSITIEAGFMTKDLAACIKGLPNVQRSDYLNTFEF
MDKLGENLKIQLAQAKL

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

73.1

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — IDH1

Entrez GeneID [3417](#)

GeneBank Accession# [NM_005896.2](#)

Protein Accession# [NP_005887.2](#)

Gene Name IDH1

Gene Alias IDCD, IDH, IDP, IDPC, PICD

Gene Description isocitrate dehydrogenase 1 (NADP+), soluble

Omim ID [147700](#)

Gene Ontology [Hyperlink](#)

Gene Summary

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. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. [provided by RefSeq]

Other Designations

NADP+-specific ICDH|NADP-dependent isocitrate dehydrogenase, cytosolic|NADP-dependent isocitrate dehydrogenase, peroxisomal|oxalosuccinate decarboxylase

Pathway

- [Biosynthesis of alkaloids derived from histidine and purine](#)
- [Biosynthesis of alkaloids derived from ornithine](#)
- [Biosynthesis of alkaloids derived from shikimate pathway](#)
- [Biosynthesis of alkaloids derived from terpenoid and polyketide](#)
- [Biosynthesis of phenylpropanoids](#)
- [Biosynthesis of plant hormones](#)
- [Biosynthesis of terpenoids and steroids](#)
- [Citrate cycle \(TCA cycle\)](#)
- [Glutathione metabolism](#)
- [Metabolic pathways](#)
- [Reductive carboxylate cycle \(CO2 fixation\)](#)

Disease

- [Adenoma](#)
- [Astrocytoma](#)
- [Blast Crisis](#)
- [Brain Neoplasms](#)
- [Carcinoma](#)
- [Chronic Disease](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Genetic Predisposition to Disease](#)

- [Glioblastoma](#)
- [Glioma](#)
- [Hematologic Diseases](#)
- [HIV Infections](#)
- [Leukemia](#)
- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Melanoma](#)
- [Monosomy](#)
- [Myelodysplastic Syndromes](#)
- [Myeloproliferative Disorders](#)
- [Neoplasm Metastasis](#)
- [Nervous System Neoplasms](#)
- [Neuroectodermal Tumors](#)
- [Oligodendroglioma](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Polycythemia Vera](#)
- [Primary Myelofibrosis](#)
- [Recurrence](#)
- [Skin Neoplasms](#)
- [Supratentorial Neoplasms](#)
- [Thrombocythemia](#)
- [Thyroid Neoplasms](#)