

Active Recombinant Human IDH1 Protein, His tagged

Cat. No. IDH1-1284H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human IDH1 protein, fused to His-tag at N terminus, was expressed in E. coli and purified by using conventional chromatography.
Species	Human
Source	E.coli
ProteinLength	1-414 aa
Description	IDH1, also known as isocitrate dehydrogenase (IDHC) cytoplasmic enzyme, belongs to the isocitrate and isopropylmalate dehydrogenases family. This protein catalyzes the third step of the citric acid cycle, which involves the oxidative decarboxylation of isocitrate, forming alpha-ketoglutarate and CO ₂ in a two step reaction. The first step involves the oxidation of isocitrate to the intermediate oxalosuccinate, while the second step involves the production of alpha-ketoglutarate.
Form	Liquid in 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 0.1M NaCl, 1mM DTT, 0.1mM PMSF
Bio-activity	Specific activity is > 18,000 pmol/min/μg. One unit will oxidize 1.0 pmole of DL-Isocitrate to D alpha-Ketoglutarate per minute in the presence of beta-NADP at pH 7.4 at 37 centigrade.
Molecular Mass	48.8 kDa

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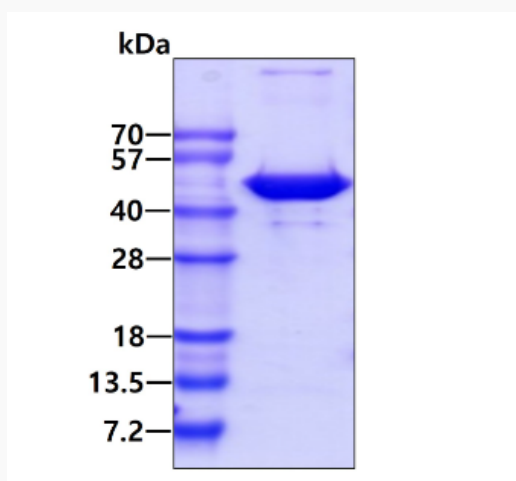
AASequence	< MGSSHHHHHSSGLVPRGSH> MSKKISGGSVVEMQGDDEMTRIIWELIKEKLIFPY VELDLHSYDLGIENRDATNDQVTKDAAEAIAKKHNVGVKCATITPDEKRVVEEFKLKQM WKSPNGTIRNILGGTVFREAIICKNIPRLVSGWVKPIIIGRHAYGDQYRATDFVVPGP KVEITYTPSDGTQKVITYLVHNFEEGGGVAMGMYNQDKSIEDFAHSSFQMALESKGW PLYLSTKNITLKKYDGRFKDIFQEYDKQYKSQFEAQKIWEHRLIDDMVAQAMKSEG GFIWACKNYDGDVQSDSVAQGYGSLGMMTSVLVCPDGKTVEAAAHGTVTRHYR MYQKGQETSTNPIASIFAWTRGLAHRALDNNKELAFFANALEEVSIETIEAGFMTKD LAACIKGLPNVQRSDYLNTFEFMDKLGLENLKIKLAQAKL
Purity	> 95% by SDS-PAGE
Applications	SDS-PAGE, Enzyme Activity
Notes	For research use only. This product is not intended or approved for human, diagnostics or veterinary use.
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/mL (determined by Bradford assay)
GENE INFORMATION	
Gene Name	IDH1 isocitrate dehydrogenase (NADP(+)) 1 [Homo sapiens (human)]
Official Symbol	IDH1
Synonyms	IDH1; isocitrate dehydrogenase 1 (NADP+), soluble; isocitrate dehydrogenase [NADP] cytoplasmic; NADP(+)-specific ICDH; oxalosuccinate decarboxylase; NADP-dependent isocitrate dehydrogenase, cytosolic; NADP-dependent isocitrate dehydrogenase, peroxisomal; IDH; IDP; IDCD; IDPC; PICD

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Gene ID	3417
mRNA Refseq	NM_005896
Protein Refseq	NP_005887
MIM	147700
UniProt ID	O75874

SDS-PAGE


3 µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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