

IDH1 recombinant protein

Recombinant IDH1 protein

CATALOG #
AAA59782

HOST
E Coli

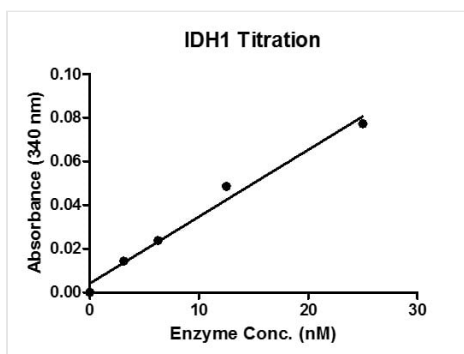
PRODUCT SYNONYMS

IDH1; Recombinant IDH1 protein; Isocitrate Dehydrogenase (NADP(+)) 1; Cytosolic; Oxalosuccinate Decarboxylase; NADP(+)-Specific ICDH; IDH1 recombinant protein

PRODUCT SPECIFICATIONS

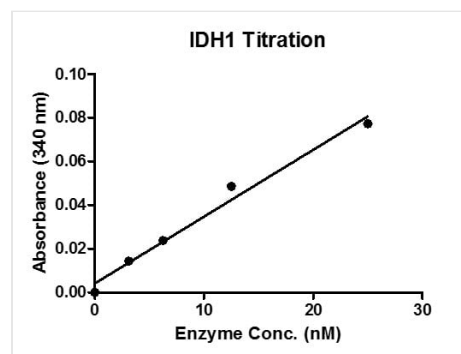
Host	E Coli
Form/Format	Recombinant IDH1 protein is supplied at a concentration of 0.8ug/ul in 25mM Tris pH8.0, 300mM NaCl, 5% glycerol.
Protein Species	Human
Tag	His-Tag
Notes	This protein is useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



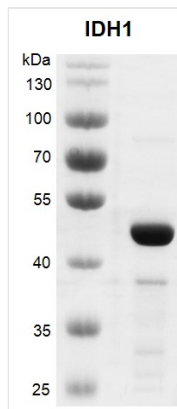
Application Data

Recombinant IDH1 protein activity assay. 200 uM DL-isocitric acid trisodium and 200 uM NADP+ were incubated with IDH1 protein in reaction buffer including 50 mM Tris-HCl pH 7.4, 100 mM MgCl2 for 10 minutes at room temperature. The generation of product NADPH was monitored by measuring absorbance at 340 nm.



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SDS-PAGE

Recombinant IDH1 protein, SDS-PAGE gel. Recombinant IDH1 protein was run on a 10% SDS-PAGE gel and stained with Coomassie Blue. MW: 47.7 kDa Purity: > 90%

ADDITIONAL INFORMATION

Related Product Information for IDH1 recombinant protein

Short Description: Recombinant IDH1 protein was expressed in E Coli as the full-length protein (accession number AAH93020.1) with a C-terminal 6xHis-tag. The molecular weight of the protein is 47.7 kDa. It is suitable for peroxisome and NADPH regulation assays, as well as for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

Background: IDH1 (Isocitrate Dehydrogenase (NADP(+)) 1, Cytosolic, also known as HEL-216, HEL-S-26, IDCD, IDH, IDP, IDPC, PICD) is a member of isocitrate dehydrogenases, which catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. Isocitrate dehydrogenases 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. IDH 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.

Product Categories/Family for IDH1 recombinant protein

[Recombinant Proteins](#)

NCBI AND UNIPROT INFORMATION

Molecular Weight

Molecular weight of the protein is 47.7kDa

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/idh1-recombinant-protein-e-coli/59782>