

IDH2 recombinant protein

Recombinant IDH2 (R140K) protein

CATALOG #
AAA59786

HOST
Baculovirus

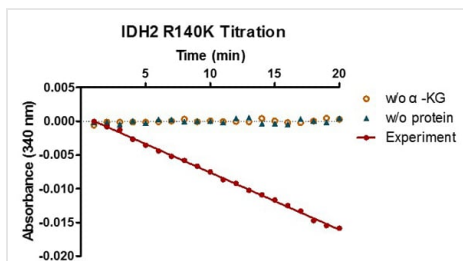
PRODUCT SYNONYMS

IDH2; Recombinant IDH2 (R140K) protein; Isocitrate Dehydrogenase (NADP(+)) 2; Mitochondrial; NADP(+)-Specific ICDH; IDH2 recombinant protein

PRODUCT SPECIFICATIONS

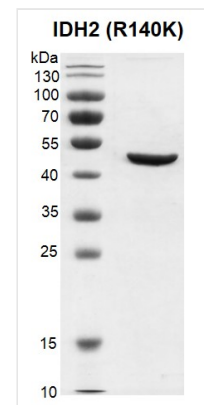
Host	Baculovirus
Form/Format	Recombinant IDH2 (R140K) protein is supplied at a concentration of 0.5ug/ul in 25mM HEPES pH7.5, 300mM NaCl, 5% glycerol, 0.04% Triton X-100, 0.2mM TCEP
Protein Species	Human
Tag	DYKDDDDK-Tag
Notes	This protein is useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling. Activity Assay Conditions: 10uM NADPH and 1uM a-KG were incubated with 100nm IDH2 (R140K) protein in 200ul reaction system containing 50mM Tris-HCl pH 7.4, 150mM NaCl, 10mM MgCl2 and 0.03% BSA (at room temperature). Depletion of NADPH was monitored continuously at Abs 340nm for 20 min.
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 IDH2 (R140K) protein activity assay 10 uM NADPH and 1 uM a-KG were incubated with 100 nM IDH2 (R140K) protein in 200 ul reaction system (50 mM Tris-HCl pH 7.4, 150 mM NaCl, 10 mM MgCl2 and 0.03% BSA, room temp). Depletion of NADPH was monitored continuously at Abs 340 nm for 20 min.



SDS-PAGE

Recombinant IDH2 (R140K) protein gel 12.5% SDS-PAGE Coomassie staining MW: 51.7 kDa
Purity: > 95%

ADDITIONAL INFORMATION

Related Product Information for IDH2 recombinant protein	Short Description: Recombinant IDH2 (R140K) protein was expressed in a baculovirus expression system as the full-length protein (accession number NP_002159.2) with a point mutation Arg140Lys and a C-terminal DYKDDDDK tag. The molecular weight of the protein is 51.7 kDa. It is suitable for assays in metabolism and pyruvate dehydrogenase complex as well as for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Background: IDH2 (Isocitrate Dehydrogenase (NADP(+)) 2, Mitochondrial, also known as MNADP-IDH, D2HGA2, IDHM, IDH, IDPM, IDC-M) is a member of isocitrate dehydrogenases, which catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. IDH2 is found in the mitochondria. It plays a role in intermediary metabolism and energy production. This protein may tightly associate or interact with the pyruvate dehydrogenase complex. Mutations in IDH1 and IDH2 frequently occur in grade II-III gliomas, secondary glioblastomas and acute myeloid leukemias (AML). To date, mutations in at least four active site arginine residues IDH1 R100, IDH1 R132, IDH2 R140, and IDH2 R172 have been shown to result in the neomorphic production of R(-)-2-hydroxyglutarate (2HG), although these mutants lack the wild-type enzyme's ability to convert isocitrate to a-ketoglutarate (a-KG, 2OG).
Product Categories/Family for IDH2 recombinant protein	Recombinant Proteins

NCBI AND UNIPROT INFORMATION

NCBI GI #	28178832
NCBI GeneID	3418
NCBI Accession #	NP_002159.2
NCBI GenBank Nucleotide #	NM_002168.2
UniProt Accession #	P48735; Q96GT3; B2R6L6
Molecular Weight	452
NCBI Official Full Name	isocitrate dehydrogenase
NCBI Official Synonym Full Names	isocitrate dehydrogenase 2 (NADP+), mitochondrial
NCBI Official Symbol	IDH2
NCBI Official Synonym Symbols	IDH; IDP; IDHM; IDPM; ICD-M; D2HGA2; mNADP-IDH
NCBI Protein Information	isocitrate dehydrogenase [NADP], mitochondrial; isocitrate dehydrogenase [NADP], mitochondrial; NADP(+)-specific ICDH; oxalosuccinate decarboxylase
UniProt Protein Name	Isocitrate dehydrogenase [NADP], mitochondrial
UniProt Gene Name	IDH2
UniProt Synonym Gene Names	IDH
UniProt Entry Name	IDHP_HUMAN

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/idh2-recombinant-protein-baculovirus/59786>