

IDH1 Protein, Human (HEK293, His, Solution)

Cat. No.:	HY-P70214
Synonyms:	rHulSocitrate dehydrogenase [NADP] cytoplasmic/IDH1, His; Isocitrate Dehydrogenase [NADP] Cytoplasmic; IDH; Cytosolic NADP-Isocitrate Dehydrogenase; IDP; NADP(+)-Specific ICDH; Oxalosuccinate Decarboxylase; IDH1; PICD
Species:	Human
Source:	HEK293
Accession:	O75874 (M1-L414)
Gene ID:	3417
Molecular Weight:	Approximately 48 kDa

PROPERTIES

AA Sequence	<pre> MSKKISGGSV VEMQGD E MTR I I W E L I K E K L I F P Y V E L D L H SYDLGIENRD ATNDQVTKDA A E A I K K H N V G V K C A T I T P D E KRVEEFK L K Q MWKSPNGTIR N I L G G T V F R E A I I C K N I P R L VSGWVKPIII GRHAYGDQYR A T D F V V P G P G K V E I T Y T P S D GTQKVTYLVH N F E E G G G V A M G M Y N Q D K S I E D F A H S S F Q M A LSKGWPLYLS T K N T I L K K Y D G R F K D I F Q E I Y D K Q Y K S Q F E AQKIWYEHRL I D D M V A Q A M K S E G G F I W A C K N Y D G D V Q S D S VAQGYGSLGM M T S V L V C P D G K T V E A E A A H G T V T R H Y R M Y Q KGQETSTNPI A S I F A W T R G L A H R A K L D N N K E L A F F A N A L E E V S I E T I E A G F M T K D L A A C I K G L P N V Q R S D Y L N T F E F M D K L G E N L K I K L A Q A K L </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl, 0.05% Brij-35, 10% Glycerol, 1 mM DTT, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

IDH1 protein is a key enzyme that catalyzes the NADP(+)-dependent oxidative decarboxylation of isocitrate (D-threo-isocitrate) to 2-ketoglutarate (2-oxoglutarate), a vital step in cellular metabolism and a process required by other enzymes such as the phytanoyl-CoA dioxygenase. The enzymatic activity of IDH1 is crucial for the generation of NADPH, a critical cofactor involved in various biosynthesis pathways. Additionally, IDH1 may have a distinct role as a corneal epithelial crystallin, potentially contributing to the maintenance of corneal epithelial transparency. These multifaceted functions highlight the importance of IDH1 in fundamental cellular processes and suggest its involvement in maintaining specific tissue characteristics.

Caution: Product has not been fully validated for medical applications. For research use only.

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