

IDH1 Protein, Human (HEK293, C-His)

Cat. No.:	HY-P70214A
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 S Y D L G I E N R D A T N D Q V T K D A A E A I K K H N V G V K C A T I T P D E K R V E E F K L K Q M W K S P N G T I R N I L G G T V F R E A I I C K N I P R L V S G W V K P I I I G R H A Y G D Q Y R A T D F V V P G P G K V E I T Y T P S D G T Q K V T Y L V H 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 L S K G W P L Y L S 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 A Q K I W Y E H R L 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 V A Q G Y G S L G M 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 K G Q E T S T N P I 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	Measured by the ability to oxidatively decarboxylate isocitrate to 2-oxoglutarate. The specific activity is 2941 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 150 mM NaCl, 1 mM DTT, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

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.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA