

32-2462: IDH1 Recombinant Protein

Alternative Name : Isocitrate dehydrogenase [NADP] cytoplasmic, EC 1.1.1.42, Cytosolic NADP-isocitrate dehydrogenase, Oxalosuccinate decarboxylase, IDH, NADP(+)-specific ICDH, IDP, PICD.

Description

Source : E.coli. IDH1 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 434 amino acids (1-414) and having a molecular mass of 48.8 kDa. IDH1 is fused to a 20 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques. Isocitrate Dehydrogenase is an enzyme of the oxidoreductase class that catalyzes the conversion of isocitrate and NAD⁺ to yield 2-ketoglutarate, carbon dioxide, and NADH. It occurs in cell mitochondria. The enzyme requires Mg²⁺, Mn²⁺; it is activated by ADP, citrate, and Ca²⁺, and inhibited by NADH, NADPH, and ATP. The reaction is the key rate-limiting step of the citric acid (tricarboxylic) cycle.

Product Info

Amount :	20 µg
Purification :	Greater than 95% as determined by SDS-PAGE.
Content :	The IDH1 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.1M NaCl, 1mM DTT, 0.1mM PMSF and 20% glycerol.
Storage condition :	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.
Amino Acid :	MGSSHHHHHH SSGLVPRGSH MSKKISGGSV VEMQGDENR IIWELIKEKL IFPYVELDLH SYDLGIENRD ATNDQVTKDA AEAIKKHNVG VKCATITPDE KRVEEFKLKQ MWKSPNGTIR NILGGTVFRE AIICKNIPRL VSGWVKPIII GRHAYGDQYR ATDFVVP GPG KVEITYTPSD GTQKVTVLVH NFEEGGGVAM GMYNQDKSIE DFAHSSFQMA LSKGWPLYLS TKNTILKKYD GRFKDIFQEI YDKQYKSQFE AQKIWYEHRL IDDMVAQAMK SEGGFIWACK NYDGDVQSDS VAQGYGSLGM MTSVLVCPDG KTVEAEEAHG TVTRHYRMYQ KGQETSTNPI ASIFAWTRGL AHRAKLDNNK ELAFFANALE EVSIETIEAG FMTKDLAACI KGLPNVQRSD YLNTFEFMDK LGENLKIKLA QAKL

Application Note

The Specific activity is > 0.7 units/ml. One unit will convert 1.0 umole of isocitrate to alpha-ketoglutarate per minute at pH7.5 at 25C.