

IDH1 Human

Description: 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.

Catalog #: ENPS-200

For research use only.

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

Source: E.coli.

Physical Appearance: Sterile Filtered colorless solution.

Amino Acid Sequence: MGSSHHHHHH SSGLVPRGSH MSKKISGGSV VEMQGDEMTR
IIWELIKEKL IFPYVELDLH SYDLGIENRD ATNDQVTKDA AEAIKHNVG VKCATITPDE
KRVEEFKLKQ MWKSPNGTIR NILGGTVFRE AIICKNIPRL VSGWVKPIII GRHAYGDQYR
ATDFVVPGP KVEITYTPSD GTQKVTVLVH NFEEGGGVAM GMYNQDKSIE DFAHSSFQMA
LSKGWPLYLS TK

Purity: Greater than 95% as determined by SDS-PAGE.

Formulation:

The IDH1 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.1M NaCl, 1mM DTT, 0.1mM PMSF and 20% glycerol.

Stability:

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.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:

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.

Biological Activity:

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.

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