

## Human Recombinant IDH1

<b>CATALOG #:</b>	6379-100	100 µg
<b>ALTERNATE NAMES:</b>	Isocitrate dehydrogenase [NADP] cytoplasmic, IDCD, IDH, IDP, IDPC, PICD.	
<b>SOURCE:</b>	E.Coli	
<b>PURITY:</b>	> 95% by SDS - PAGE	
<b>MOL. WEIGHT:</b>	48.8 kDa (434 aa, 1-414 aa + NT His-Tag)	
<b>FORMULATION:</b>	1 mg/ml solution in 20 mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 0.1 M NaCl, 1 mM DTT and 0.1 mM PMSF	

### STORAGE CONDITIONS:

Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

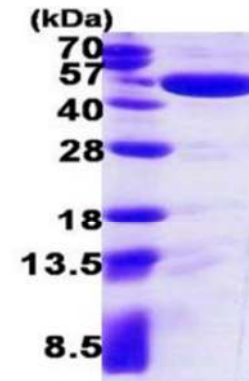
### DESCRIPTION:

Isocitrate Dehydrogenase is an enzyme of the oxidoreductase class that catalyzes the conversion of isocitrate and NAD<sup>+</sup> to yield 2-ketoglutarate, carbon dioxide, and NADH. It occurs in cell mitochondria. The enzyme requires Mg<sup>2+</sup>, Mn<sup>2+</sup>; it is activated by ADP, citrate, and Ca<sup>2+</sup>, and inhibited by NADH, NADPH, and ATP. The reaction is the key rate-limiting step of the citric acid (tricarboxylic) cycle.

### AMINO ACID SEQUENCE:

MGSSHHHHHH SGLVPRGSH MSKKISGGSV VEMQGDEMTR IIWELIKEKL IFPYVELDLH  
SYDLGIENRD ATNDQVTKDA AEAIKKHNVG VKCATITPDE KRVEEFKLLKQ MWKSPNGTIR  
NILGGTVFRE AIICKNIPRL VSGWVKPIII GRHAYGDQYR ATDFVVPDGP KVEITYTPSD  
GTQKVTYLVH NFEEGGGVAM GMYNQDKSIE DFAHSSFQMA LSKGWPLYLS  
TKNTILKKYD GRFKDIFQEI YDKQYKSQFE AQKIWYEHRL IDDMVAQAMK SEGGFIWACK  
NYDGDVQSDS VAQGYGSLGM MTSVLVCPDG KTVEAEAAHG TVTRHYRMYQ  
KGQETSTNPI ASIFAWTRGL AHRAKLDNNK ELAFFANALE EVSIETIEAG FMTKDLAACI  
KGLPNVQRSD YLNTFEFMDK LGENLKIKLA QAKL

**BIOLOGICAL ACTIVITY:** > 0.7 units/ml. One unit will convert 1.0 µmole of isocitrate to α-ketoglutarate per minute at pH7.5 at 25C.



15% SDS-PAGE (3µg)

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### RELATED PRODUCTS:

- Isocitrate Dehydrogenase Activity Assay Kit (**Cat. No. K756-100**)

**FOR RESEARCH USE ONLY! Not to be used in humans.**