# Recombinant Mouse Isocitrate dehydrogenase [NADP] cytoplasmic (Idh1)

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| **Product Code** | CSB-YP010989MO |
| **Storage** | Store at -20°C, for extended storage, conserve at -20°C or -80°C. |
| **Uniprot No.** | O88844 |
| **Product Type** | Recombinant Protein |
| **Immunogen Species** | Mus musculus (Mouse) |
| **Purity** | ≥85% (SDS-PAGE) |
| **Sequence** | SRKIQGGSV VEMQGDEMTR IIWELIKEKL ILPYVELDLH SYDLGIENRD ATNDQVTKDA AEAIKKYNVG VKCATITPDE KRVEEFKLKQ MWKSPNGTIR NILGGTVFRE AIICKNIPRL VTGWVKPIII GRHAYGDQYR ATDFVVPGPG KVEITYTPKD GTQKVTYMVH DFEEGGGVAM GMYNQDKSIE DFAHSSFQMA LSKGWPLYLS TKNTILKKYD GRFKDIFQEI YDKKYKSQFE AQKICYEHRL IDDMVAQAMK SEGGFIWACK NYDGDVQSDS VAQGYGSLGM MTSVLICPDG KTVEAEAAHG TVTRHYRMYQ KGQETSTNPI ASIFAWSRGL AHRAKLDNNT ELSFFAKALE DVCIETIEAG FMTKDLAACI KGLPNVQRSD YLNTFEFMDK LGENLKAKLA QAKL |
| **Source** | Yeast |
| **Target Names** | Idh1 |
| **Protein Names** | Recommended name: Isocitrate dehydrogenase [NADP] cytoplasmic Short name= IDH EC= 1.1.1.42 Alternative name(s): Cytosolic NADP-isocitrate dehydrogenase IDP NADP(+)-specific ICDH Oxalosuccinate decarboxylase |
| **Expression Region** | 2-414 |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| **Tag Info** | Tag type will be determined during the manufacturing process. |
| **Protein Length** | Full Length of Mature Protein |
| **Target Details** | Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. This protein is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha- |

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| | hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. |
| **Reconstitution** | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference. |
| **Shelf Life** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.<br>Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |