Creative Enzymes®

isocitrate dehydrogenase (NADP+)

Cat. No. EXWM-0327

Lot. No. (See product label)

Introduction

Description	Requires Mn2+ or Mg2+ for activity. Unlike EC 1.1.1.41, isocitrate dehydrogenase (NAD+), oxalosuccinate can be used as a substrate. In eukaryotes, isocitrate dehydrogenase exists in two forms: an NAD+-linked enzyme found only in mitochondria and displaying allosteric properties, and a non-allosteric, NADP+-linked enzyme that is found in both mitochondria and cytoplasm. The enzyme from some species can also use NAD+ but much more slowly.
Synonyms	oxalosuccinate decarboxylase; oxalsuccinic decarboxylase; isocitrate (NADP) dehydrogenase; isocitrate (nicotinamide adenine dinucleotide phosphate) dehydrogenase; NADP-specific isocitrate dehydrogenase; NADP-linked isocitrate dehydrogenase; NADP-dependent isocitrate dehydrogenase; NADP isocitric dehydrogenase; isocitrate dehydrogenase (NADP-dependent); NADP-dependent isocitric dehydrogenase; triphosphopyridine nucleotide-linked isocitrate dehydrogenase-oxalosuccinate carboxylase; NADP+-linked isocitrate dehydrogenase; IDH (ambiguous); dual-cofactor-specific isocitrate dehydrogenase; NADP+-ICDH; NADP+-IDH; IDP; IDP1; IDP2; IDP3

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.1.1.42
CAS No.	9028-48-2
Reaction	isocitrate + NADP+ = 2-oxoglutarate + CO2 + NADPH + H+ (overall reaction); (1a) isocitrate + NADP+ = oxalosuccinate + NADPH + H+; (1b) oxalosuccinate = 2-oxoglutarate + CO2
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.