

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 °C for short term. For long term storage, store it at -20 °C~-80 °C.