Creative Enzymes®

Native Chicken Malic Dehydrogenase (oxaloacetate-decarboxylating)

Cat. No. NATE-0446

Lot. No. (See product label)

Introduction

Description	Malic dehydrogenase (MDH) exists as two isoforms within eukaryotic cells, one that is expressed in the mitochondria and functions in the TCA cycle and one in the cytoplasm that converts malate from the mitochondria back into oxaloacetate.
Applications	Malic dehydrogenase has been used in a study to assess the dietary manganese requirement of juvenile yellow catfish (Pelteobagrus fulvidraco) and effects on whole body mineral composition and hepatic intermediary metabolism. It has also been used in a study to investigate the establishment and biological characterization of a fibroblast cell line from the Langshan chicken.
Synonyms	malic enzyme (ambiguous); pyruvic-malic carboxylase (ambiguous); malate dehydrogenase (decarboxylating, NADP+); NADP+-linked decarboxylating malic enzyme; NADP+-malic enzyme; NADP+-specific malic enzyme; NADP-specific malate dehydrogenase; malate dehydrogenase (NADP+, decarboxylating); L-malate:NADP+oxidoreductase; EC 1.1.1.40; 9028-47-1

Product Information

Species	Chicken
Source	Chicken liver
Form	ammonium sulfate suspension; Suspension in 2.9 M (NH4)2SO4 solution containing 10 mM potassium phosphate, 0.5 mM 2-mercaptoethanol, 10 mM manganese chloride, and 3 mM Na4EDTA, pH 6.0
EC Number	EC 1.1.1.40
CAS No.	9028-47-1
Activity	10-30 units/mg protein (modified Warburg-Christian)
Unit Definition	One unit will convert 1.0 µmole of L-malate and NADP to pyruvate, CO2, and NADPH per min at pH 7.4 at 25°C.

Storage and Shipping Information

Storage	2-8°C