

## 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 (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> solution containing 10 mM potassium phosphate, 0.5 mM 2-mercaptoethanol, 10 mM manganese chloride, and 3 mM Na<sub>4</sub>EDTA, 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  $\mu$ mole of L-malate and NADP to pyruvate, CO<sub>2</sub>, and NADPH per min at pH 7.4 at 25°C.

### Storage and Shipping Information

#### Storage

2-8°C