Creative Enzymes®

Native Bovine L-Glutamic Dehydrogenase

Cat. No. NATE-0392

Lot. No. (See product label)

Introduction

Description L-glutamic dehydrogenase catalyzes the conversion of glutamate to α-ketoglutarate. Mammalian forms of this enzyme, including this bovine form, can use either NADP (H) or NAD (H) as coenzymes. L-glutamic dehydrogenase plays a unique role in mammalian metabolism. The reverse reaction catalyzed by this enzyme is the only pathway by which ammonia can become bound to the α-carbon atom of an α-carboxylic acid and thus, is the only source of de novo amino acid synthesis in mammalian species.

Synonyms glutamic dehydrogenase; glutamate dehydrogenase [NAD (P)]; 9029-12-3; glutamate dehydrogenase [NAD (P)+]; EC 1.4.1.3; L-GLDH; L-Glutamate:NAD[P]+ Oxidoreductase (deaminating)

Product Information

Species Bovine

Source Bovine liver

Form Type I, ammonium sulfate suspension, Suspension in 2.0 M (NH4)2SO4 solution; Type II, lyophilized powder, Contains primarily Citrate buffer salt; Type III, aqueous glycerol solution, Solution in 50% glycerol, pH 7.3.

EC Number EC 1.4.1.3

CAS No. 9029-12-3

Activity Type I, > 40 units/mg protein; Type II, > 20 units/mg protein; Type III, > 35 units/mg protein.

Pathway Alanine, aspartate and glutamate metabolism, organism-specific biosystem; Alanine, aspartate and glutamate metabolism, conserved biosystem; D-Glutamine and D-glutamate metabolism, organism-specific biosystem

Function ATP binding; GTP binding; glutamate dehydrogenase (NAD+) activity

Unit Definition One unit will reduce 1.0 µmole of α-ketoglutarate to L-glutamate per min at pH 7.3 at 25°C, in the presence of ammonium ions.

Storage and Shipping Information

Storage 2-8°C