Creative Enzymes®

Glutamate dehydrogenase, Recombinant

Cat. No. NATE-1145

Lot. No. (See product label)

Introduction

Description

Glutamate dehydrogenase (GLDH) is an enzyme, present in most microbes and the mitochondria of eukaryotes, as are some of the other enzymes required for urea synthesis, that converts glutamate to α-ketoglutarate, and vice versa. In animals, the produced ammonia is usually used as a substrate in the urea cycle. Typically, the α-ketoglutarate to glutamate reaction does not occur in mammals, as glutamate dehydrogenase equilibrium favours the production of ammonia and α-ketoglutarate.

Applications

Except glutamate dehydrogenation, GLDH can also catalytic the deaminase of other amino acids such as L-valine, L-2-aminobutyric acid and L-leucine. The main measuring method is continuous monitoring. Moreover, GLDH catalyzes the reaction of α-ketoglutarate, H+,ammonia and NADH to generating glutamic. Since NADH is the color source of many biochemical assays, therefore the reaction catalyzed by the corresponding GLDH is widely used to detect the final step of biochemical detection reagent.

Synonyms

glutamate dehydrogenase; glutamic dehydrogenase; glutamate dehydrogenase (NAD+); glutamate oxidoreductase; glutamic acid dehydrogenase; L-glutamate dehydrogenase; NAD+-dependent glutamate dehydrogenase; NAD+-dependent glutamic dehydrogenase; NAD+-glutamate dehydrogenase; NAD+-linked glutamate dehydrogenase; NAD+-linked glutamic dehydrogenase; NAD+-specific glutamic dehydrogenase; NAD+-specific glutamate dehydrogenase; NAD+:glutamate oxidoreductase; NADH-linked glutamate dehydrogenase; GLDH; EC 1.4.1.2

Product Information

Appearance	White powder, lyophilized
EC Number	EC 1.4.1.2
CAS No.	9001-46-1
Molecular Weight	About 65kDa (SDS-PAGE detection)
Purity	>90% (SDS-PAGE test)
Activity	>400U/mg
Buffer	20mM Tris, PH8.0
Unit Definition	One unit will convert 1μmol NADH per min at pH 8.3and at 37°C.

Storage and Shipping Information

Storage	4°C, store at -20°C for long-term preservation.