Creative Enzymes®

Glutamate Dehydrogenase from Thermophilic Bacterium, recombinant

Cat. No. NATE-1701

Lot. No. (See product label)

Introduction

Description	GDH is an oxidoreductase enzyme which relates carbon and nitrogen metabolism. It catalyzes the reduction of α-ketoglutarate and ammonia to L-glutamate and vice versa. This enzyme is a robust and ideal candidate for research use, and industrial applications in the diagnostics and food industries.
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

Species	Thermophilic Bacterium
Source	E. coli
Form	Lyophilized powder
EC Number	EC 1.4.1.2
CAS No.	9001-46-1
Molecular Weight	270 kDa; Homohexameric (45 kDa per subunit)
Activity	> 90 U/mg protein
Concentration	Protein concentration: > 13% (w/w)
pH Stability	7-8.5
Optimum pH	8
Thermal stability	20-70°C, Maintains over 85% of its activity for 8 hours at 50°C.
Optimum temperature	50°C
Unit Definition	One unit is defined as the conversion of 1umol of α-ketoglutarate into glutamate, in 1 minute at 50°C at pH 8.0

Storage and Shipping Information

Storage	at -20 °C