Creative Enzymes
Diagnostic Enzymes

Glutamate dehydrogenase, Recombinant

Product Information

Cat#	NATE-1145
Abbr	GLDH, Recombinant
Alias	GLDH
Similar	GLDH
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.
Appearance	White powder, lyophilized
Product Overview	Glutamate dehydrogenase (GLDH, EC 1.4.1.2) is the enzyme present in the mitochondrial matrix of the cell. It can convert glutamic acid to α-ketoglutarate and catalyze the reverse reaction as well. GLDH is one of the allosteric enzymes which generated in the body through oxidative dehydrogenation, aminotransferase, combined dehydrogenation, non-oxidative dehydrogenation reaction and so on. The combined dehydrogenation is the most important reaction in the body. GLDH is an important molecular in the assimilation and alienation pathway. It is rich in the liver lobule cells followed by the kidney, pancreas, brain, small intestine and heart. Since GLDH is a kind of liver-specific enzyme, the change of GLDH activity in the peripheral blood reflects the

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	changes of the liver function to some extent.
Form	Freeze dried powder
Enzyme Commission Number	EC 1.4.1.2
Activity	>400U/mg
Molecular Weight	About 65kDa (SDS-PAGE detection)
Purity	>90% (SDS-PAGE test)
Unit Definition	One unit will convert 1μmol NADH per min at pH 8.3and at 37°C.
Storage	4°C, store at -20°C for long-term preservation.
Buffer	20mM Tris, PH8.0
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

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