

Glutamate dehydrogenase(NAD dependent), Enzyme Activity

Catalog	Unit
TBP0024-1KU	1000 U
TBP0024-5KU	5000 U

Preparation and Specification

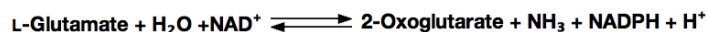
Appearance: White amorphous powder, lyophilized

Activity: GradeII 100 U/mg-solid or more

Contaminants: NAD oxidase $\leq 1.0 \times 10^{-2}\%$

L-Glutamate : NAD⁺ oxidoreductase (deaminating) (EC 1.4.1.2)

Properties



Stability: Stable at -20°C for at least One year

Molecular weight: approx. 260,000

Isoelectric point: 5.6

Michaelis constants: $9.21 \times 10^{-3}\text{M}$ (NH₃), $4.80 \times 10^{-3}\text{M}$ (α -Ketoglutarate)

$7.8 \times 10^{-5}\text{M}$ (L-Glutamate), $1.29 \times 10^{-4}\text{M}$ (NADH), $5.89 \times 10^{-4}\text{M}$ (NAD⁺)

Structure: 6 subunits per enzyme molecule

Inhibitors: Heavy metals, PCMB, IAA

Optimum pH: 7.5-8.0 (α -KG→L-Glu) 9.0 (L-Glu→ α -KG)

Optimum temperature: 55°C (α -KG→L-Glu) 50°C (L-Glu→ α -KG)

pH Stability: pH 5.0-10.0 (25°C, 20hr)

Thermal stability: below 50°C (pH 8.3, 10min)

Applications

This enzyme is useful for enzymatic determination of NH₃, α -ketoglutaric acid and L-glutamic acid, and for assay of leucine aminopeptidase and urease. This enzyme is also used for enzymatic determination of urea when coupled with urease (URH-201) in clinical analysis.

For research use only