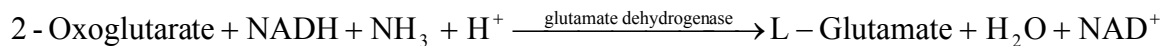


GLUTAMATE DEHYDROGENASE

L-Glutamate:NAD⁺ oxidoreductase

Reaction:



Product Description

Appearance : White amorphous powder, lyophilized
Source : Microorganism
Enzyme Comission Number : EC 1.4.1.2
CAS Number : 9001-46-1
Storage Temperature -20
Specific activity : 500U/mg protein
Unit definition : One unit will convert one micromole of α -ketoglutarate to L-glutamate per min at pH 8.3 at 30 .

Preparation Instructions

The enzyme is reconstituted in 100mM Tris-HCl buffer, pH 8.3 for activity assay.

Properties

Molecular Weight : 260 kDa (gel)
Isoelectric point : 5.6
Michaelis constant:
9.5 $\times 10^{-3}$ M (NH₃)
5.0 $\times 10^{-3}$ M (α -Ketoglutarate)
8.4 $\times 10^{-5}$ M (NADH)
Optimum pH: 8.5(α -KG L-Glu)
Optimum temperature: 45
pH Stability : 5.0~11.0
Thermal Stability : < 60 (pH8.3, 10min)
Inhibitors : Ag⁺, Hg²⁺, Cu²⁺, Zn²⁺

Fig. 1 pH Optimum

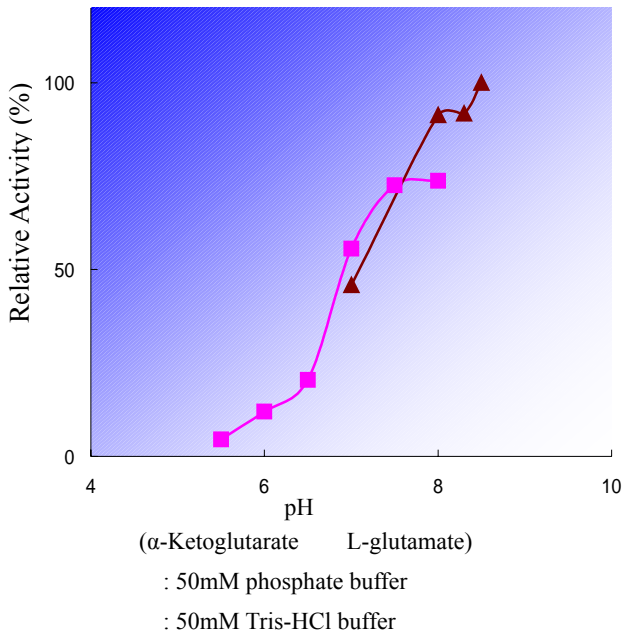


Fig.3. Optimum temperature

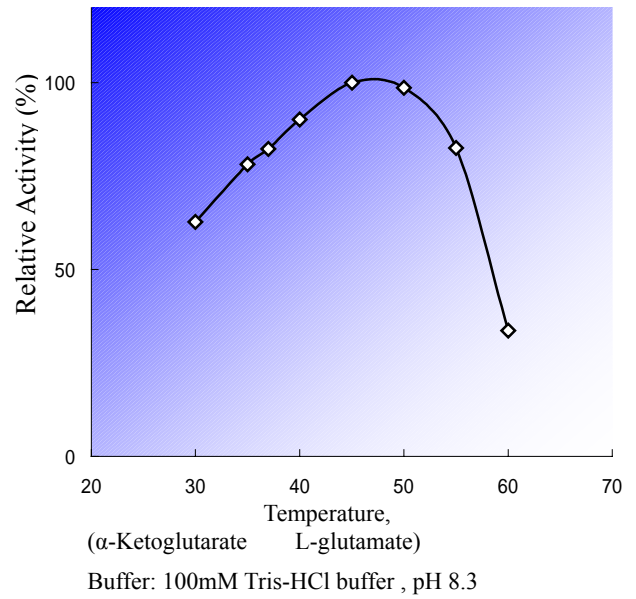


Fig. 2 pH Stability

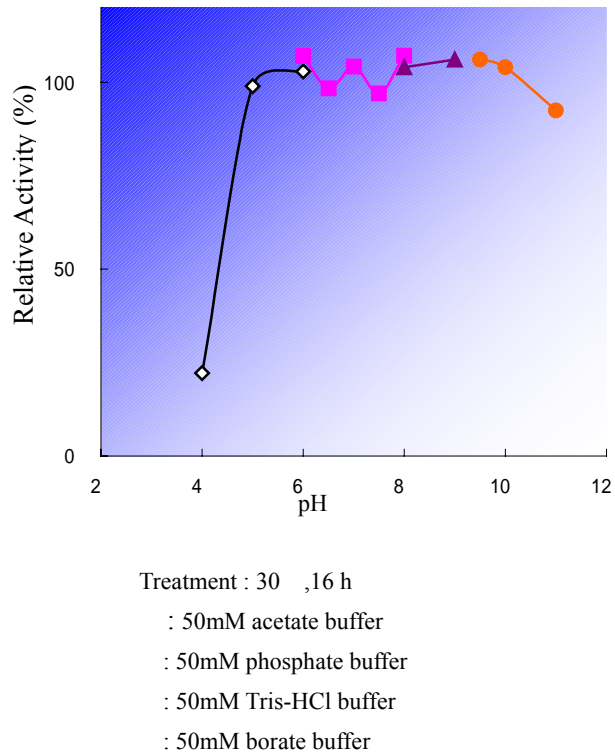


Fig.4. Thermal stability

