

Glycerol kinase, Enzyme Activity

Catalog	Unit
TBP0026-1KU	1000 U
TBP0026-5KU	5000 U

Preparation and Specification

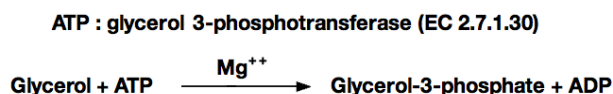
Appearance: White amorphous powder, lyophilized

Activity: Grade III 30 U/mg-solid or more

Contaminants: Catalase $\leq 1.0 \times 10^{-10}\%$

NADH oxidase $\leq 1.0 \times 10^{-30}\%$

Adenosine triphosphatase $\leq 1.0 \times 10^{-30}\%$



Properties

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

Molecular weight: approx. 220,000 (by gel filtration)

Structure: Four subunits of approx. 58,000

Isoelectric point: 4.3

Michaelis constants: $9.4 \times 10^{-5}\text{M}$ (Glycerol), $1.3 \times 10^{-5}\text{M}$ (ATP), $2.1 \times 10^{-3}\text{M}$ (Dihydroxyacetone)

Inhibitors: p-Chloromercuribenzoate, Hg^{++} , Ag^{+}

Optimum pH: 10.0

Optimum temperature: 70°

pH Stability: pH 5.5-10.0 (25°C , 20hr)

Thermal stability: below 65°C (pH 7.5, 30min)

Applications

This enzyme is useful for enzymatic determination of glycerol and triglyceride when coupled with glycerol-3-phosphate oxidase (=G-3-P oxidase, G3O-321) or pyruvate kinase and lactate dehydrogenase (LCD-209, LCD-211, LCD-221), lipoprotein lipase (LPL-311, LPL-314) in clinical analysis.

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