



HEXOKINASE from yeast (Lot 170801)

E-HEX10

08/17

(EC 2.7.1.1) ATP:D-hexose 6-phosphotransferase

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 53,738)
- Single major band on isoelectric focusing (pI ~ 5.3)

2. SPECIFIC ACTIVITY:

98 U/mg protein at pH 7.4 and 25°C.

One Unit of hexokinase is defined as the amount of enzyme required to produce one μmole of NADH from NAD⁺ under the following assay conditions:

Tris.HCl buffer, pH 7.6	89 mM
MgCl ₂	8.9 mM
ATP	2.9 mM
NAD ⁺	2.7 mM
D-Glucose	10.7mM
Glucose 6-phosphate dehydrogenase	2.3 U/mL

3. OTHER ACTIVITIES (as a percentage of hexokinase activity):

Enzyme Measured	Substrate	Activity, %
Hexokinase	D-glucose	100
ATPase	ATP	0.002
Glucose 6-phosphate dehydrogenase	D-glucose 6-phosphate	0.00000
Phosphoglucose isomerase	D-fructose 6-phosphate	0.002
6-Phosphogluconate dehydrogenase	D-gluconate 6-phosphate	0.00000
Phosphoglucumutase	D-glucose 1-phosphate	0.00000

4. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 7.6 and up to 40°C.

5. STORAGE AND USE CONDITIONS/RECOMMENDATIONS:

The enzyme is supplied as an ammonium sulphate suspension and should be stored at 4°C. For assay, this enzyme should be diluted in 100 mM Tris.HCl buffer, pH 7.6 containing 5 mM MgCl₂ and 0.5 mg/mL BSA. **Swirl to mix the enzyme suspension immediately prior to use.**

For the measurement of D-fructose or D-glucose refer to the **Fructose/Glucose Assay Kit** booklet at www.megazyme.com.