



GLUCONOKINASE from *E. coli* (Lot 140502)

Recombinant

E-GLUKEC

(EC 2.7.1.12) ATP:D-gluconate 6-phosphotransferase
CAS: 9030-55-1

03/19

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 21,707)
- Single major band on isoelectric focusing (pI ~ 6.7)

2. SPECIFIC ACTIVITY:

170 U/mg protein at pH 8.0 and 25°C.

One Unit of gluconate kinase is defined as the amount of enzyme required to produce one μ mole of NADPH from NADP⁺ under the following assay conditions:

| | |
|----------------------------------|----------|
| Glycylglycine buffer, pH 8.0 | 86 mM |
| ATP | 7.5 mM |
| D-Gluconic acid | 3.2 mM |
| MgCl ₂ | 8.6 mM |
| NADP ⁺ | 0.9 mM |
| 6-Phosphogluconate dehydrogenase | 1.9 U/mL |

3. SPECIFICITY:

Catalyses the reaction:



4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

| Enzyme Measured | Substrate | % |
|------------------|-----------------|----------|
| Gluconate kinase | D-gluconic acid | 100 |
| ATPase | ATP | < 0.001 |
| NADH oxidase | NADH | < 0.0001 |
| NADPH oxidase | NADPH | < 0.0001 |

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 8.0 and up to 25°C.

6. STORAGE AND USE CONDITIONS/RECOMMENDATIONS:

The enzyme is supplied as an ammonium sulphate suspension and should be stored at 4°C. **Swirl to mix the enzyme suspension immediately prior to use.**