



Hexokinase plus Glucose-6-Phosphate Dehydrogenase (Lot 140701)

E-HKGDH

07/14

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

(EC 1.1.1.49) D-glucose-6-phosphate:NADP⁺ 1-oxidoreductase

PROPERTIES

1. ELECTROPHORETIC PURITY:

Each protein appears as a single band on SDS-gel electrophoresis and on isoelectric focusing (see sheets for individual enzymes for details).

2. SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES:

Hexokinase (HK); 98 U/mg of protein at pH 7.5 and 25°C before mixing with G6P-DH.

One Unit of hexokinase is the amount of enzyme required to produce one μ mole of NADPH from NADP⁺ per minute.

Glucose-6-Phosphate Dehydrogenase (G6P-DH); 675 U/mg of protein at pH 7.8 and 25°C before mixing with hexokinase (HK).

One Unit of Glucose-6-phosphate Dehydrogenase activity is the amount of enzyme required to convert one μ mole of glucose-6-phosphate to 6-phosphogluconate per minute.

3. CONTAMINATING ACTIVITIES (as a percentage of major activities):

Refer to the individual data sheets for **hexokinase** and **glucose-6-phosphate dehydrogenase**.

4. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 7.4 and up to 40°C.

5. STORAGE AND USE CONDITIONS/RECOMMENDATIONS:

This mixture of enzymes is supplied as an ammonium sulphate suspension and should be stored at 4°C. For use in the measurement of D-fructose or D-glucose, refer to the **D-Fructose/D-Glucose Assay Kit booklet (Megazyme cat. no. K-FRUGL)** for details of required concentrations, aliquots and incubation times. Swirl the vial to ensure that the enzymes are uniformly suspended before removing aliquots.