

## Hexokinase Activity Assay Kit (Colorimetric)

Cat. No. Kit-1090    Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

Hexokinase Activity Assay kit (Colorimetric), glucose is converted to glucose-6-phosphate by hexokinase; the glucose-6-phosphate is oxidized by glucose-6-phosphate dehydrogenase to form NADH, which reduces a colorless probe to a colored product with strong absorbance at 450 nm. The assay is simple, sensitive and rapid and can detect hexokinase activity even less than 0.1 mU/well.

Hexokinases (HK) are found in many organisms including bacteria, plants and mammals and play an important role in glucose metabolism. Hexokinases phosphorylate glucose and generate glucose-6-phosphate for glycolysis.

Hexokinases have four isoforms (HKI, II, III and IV). HK-I, HK-II and HK-III have low  $K_m$ , while HK-IV has 100 fold high  $K_m$ .

Hexokinase deficiency leads to severe human diseases such as X-linked muscular dystrophy and a rare autosomal recessive hemolytic anemia. However, increased hexokinase activity is detected in various human tumors and is associated with metastasis. Early detection of abnormal hexokinase activity is crucial for diagnosis, prediction and treatment of the disease.

#### Size

100 Test

#### Storage

Store kit at -20 °C in the dark immediately upon receipt. Kit has a storage time of 1 year from receipt, providing components have not been reconstituted.

Refer to list of materials supplied for storage conditions of individual components. Aliquot components in working volumes before storing at the recommended temperature. Reconstituted components are stable for 2 months.

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**Applications**

Measurement of Hexokinase activity in Tissue, Suspension cells, Tissue Extracts, Serum, Adherent cells.

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