abcam

Product datasheet

Hexokinase Activity Assay Kit (Colorimetric) ab136957

44 References 画像数 5

製品の概要

製品名 Hexokinase Activity Assay Kit (Colorimetric)

検出方法 Colorimetric

サンプルの種類 Serum, Tissue, Adherent cells, Suspension cells, Tissue Extracts

アッセイタイプ Enzyme activity (quantitative)

検出感度 < 0.1 mU/well

全工程の試験時間 1h 00m

種交差性 交差種: Mammals, Other species

製品の概要 Hexokinase Activity Assay Kit (ab136957) uses a simple, sensitive and rapid procedure which

can detect hexokinase activity to below 0.1 mU/well.

In the hexokinase assay protocol, glucose is converted to glucose-6-phosphate by hexokinase.

The glucose-6-phosphate is then oxidized by glucose-6-phosphate dehydrogenase to form

NADH. The NADH reduces a colorless probe to a colored product with strong absorbance at 450

nm.

Hexokinase activity assay protocol summary:

- add samples and standards to wells

- add reaction mix and incubate for 20-60 min

- analyze repeatedly with a microplate reader during the incubation

特記事項 This product is manufactured by BioVision, an Abcam company and was previously called K789

Hexokinase Colorimetric Assay Kit. K789-100 is the same size as the 100 test size of ab136957.

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 (HK-I, II, III and IV). HK-I, HK-II

and HK-III have low Km, while HK-IV has 100 fold high Km.

試験プラットフォーム Microplate reader

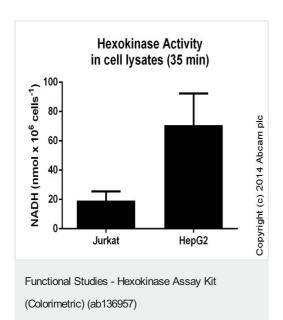
製品の特性

保存方法 Store at -20°C. Please refer to protocols.

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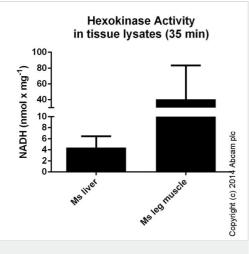
| 内容 | 100 tests |
|-----------------------------|-----------|
| Assay Buffer LX | 1 x 25ml |
| Developer Solution III | 1 vial |
| Development Enzyme Mix IX | 1 vial |
| Hexokinase Positive Control | 1 vial |
| HK Coenzyme | 1 vial |
| HK Substrate | 1 x 1ml |
| NADH Standard I | 1 vial |

画像

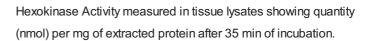


Hexokinase Activity measured in cell lysates showing quantity (nmol) per 1 mln cells after 35 min of incubation.

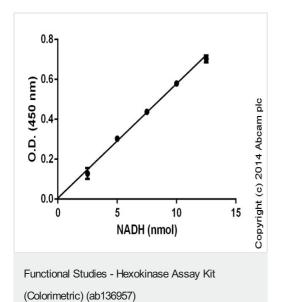
Samples with the concentration of 5e6 cells/mL were used. Samples were diluted 1-27 fold.



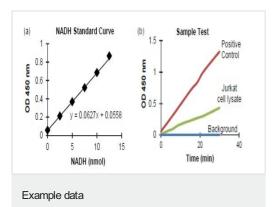
Functional Studies - Hexokinase Assay Kit (Colorimetric) (ab136957)



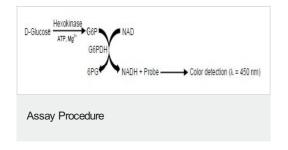
Protein concentration for samples varied from 13 mg/mL to 43 mg/mL. Samples were diluted 1-9 fold.



Standard curve: mean of duplicates (+/- SD) with background reads subtracted



NADH standard curve (a). Hexokinase activity in Positive Control and Jurkat cell lysate (40 µg) (b).



In this kit 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.

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