abcam

Product datasheet

Pyruvate Kinase Assay Kit ab83432

27 References 画像数 8

製品の概要

製品名 Pyruvate Kinase Assay Kit 検出方法 Colorimetric/Fluorometric

サンプルの種類 Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Tissue

アッセイタイプ Enzyme activity (quantitative)

検出感度 = 0.1 mU/ml

全工程の試験時間 0h 40m

製品の概要 Pyruvate Kinase Assay Kit ab83432 provides a simple, direct and automation-ready assay for measuring pyruvate kinase activity in cell culture supernatant, plasma, serum, tissue, urine and

other biological fluids (not validated for use with whole blood).

In the pyruvate kinase assay protocol, PEP and ADP are catalyzed by pyruvate kinase to generate pyruvate and ATP. The generated pyruvate is oxidized by pyruvate oxidase to produce color (absorbance 570 nm) and fluorescence (Ex/Em 535/587 nm). Since the increase in color or fluorescence intensity is proportional to the increase in pyruvate amount, the PK activity can be accurately measured.

The kit detects 0.1 mU/ml pyruvate kinase.

Pyruvate kinase assay protocol summary:

- add samples and standards to wells
- add reaction mix
- analyze with microplate reader immediately and after 10-20 min

特記事項 This product is manufactured by BioVision, an Abcam company and was previously called K709

Pyruvate Kinase Activity Colorimetric/Fluorometric Assay Kit. K709-100 is the same size as the

100 test size of ab83432.

Pyruvate kinase (PK, EC 2.7.1.40) is an enzyme involved in glycolysis. It catalyzes the transfer of a phosphate group from phosphoenolpyruvate (PEP) to ADP, yielding one molecule of pyruvate and one molecule of ATP. Lack of pyruvate kinase will slow down the process of glycolysis which

causes the disease known as pyruvate kinase deficiency.

試験プラットフォーム Microplate reader

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製品の特性

保存方法

Store at -20°C. Please refer to protocols.

内容	100 tests	2000 tests
Development Enzyme Mix I	1 vial	20 vials
OxiRed Probe	1 x 200µl	20 x 200μl
PK Assay Buffer	1 x 25ml	20 x 25ml
PK Positive Control	1 vial	20 vials
PK Substrate Mix	1 vial	20 vials
Pyruvate Standard	1 x 100µl	20 x 100μl

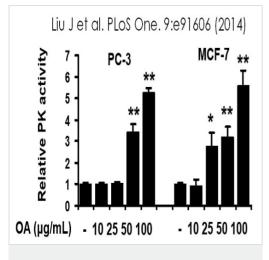
関連性

Pyruvate kinase (PK, EC 2.7.1.40) is an enzyme involved in glycolysis. It catalyzes the transfer of a phosphate group from phosphoenolpyruvate (PEP) to ADP, yielding one molecule of pyruvate and one molecule of ATP. Lack of pyruvate kinase will slow down the process of glycolysis which causes the disease known as pyruvate kinase deficiency.

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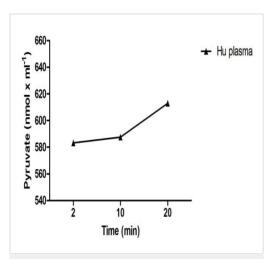
画像



Functional Studies - Pyruvate Kinase (PK) Assay Kit (ab83432)

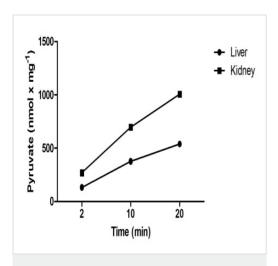
Image from Liu J et al., PLoS One. 2014;9(3):e91606. Fig S2(A).; doi: 10.1371/journal.pone.0091606. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

PC-3 and MCF-7 cells were treated with OA at the indicated doses and PK activity was determined 12 hr after OA treatment using ab83432. The average values of three independent experiments were shown as Mean \pm SD. *, P<0.05, **, P<0.01.

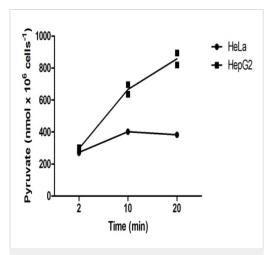


Pyruvate measured in biological fluid after 2 min, 10 min and 20 min incubation time showing quantity (nmol) per ml of tested sample.



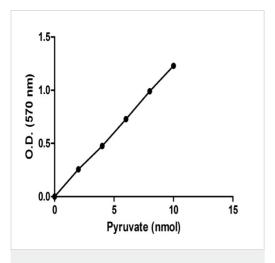


Functional Studies - Pyruvate Kinase (PK) Assay Kit (ab83432) Pyruvate measured in mouse tissue lysates after 2 min, 10 min and 20 min incubation time showing quantity (nmol) per mg of tested sample.

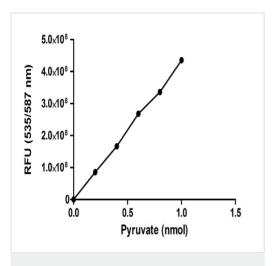


Pyruvate measured in cell lysates after 2 min, 10 min and 20 min incubation time showing quantity (nmol) per 1 mln of tested cells.

Functional Studies - Pyruvate Kinase (PK) Assay Kit (ab83432)

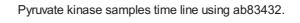


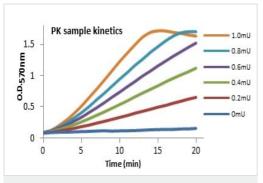
Functional Studies - Pyruvate Kinase (PK) Assay Kit (ab83432) Colorimetric standard curve: mean of duplicates (+/- SD) with background reads subtracted.



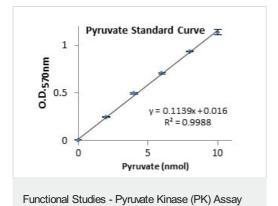
Fluorometric standard curve: mean of duplicates (+/- SD) with background reads subtracted.







Functional Studies - Pyruvate Kinase (PK) Assay Kit (ab83432)



Kit (ab83432)

Pyruvate standard curve using ab83432.

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