abcam

Product datasheet

Pyruvate Assay Kit ab65342

★★★★★ 2 Abreviews 81 References 画像数 6

製品の概要

製品名 Pyruvate Assay Kit

検出方法 Colorimetric/Fluorometric

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

アッセイタイプ Quantitative

検出感度 > 1 μM

検出範囲 1 μM - 200 μM

全工程の試験時間 0h 40m

製品の概要 Pyruvate Assay Kit (Colorimetric/Fluorometric) ab65342 provides a simple, direct and

automation-ready procedure for measuring pyruvate concentration in various biological samples

such as blood, cells, culture and fermentation media, etc.

In the pyruvate assay protocol, pyruvate is oxidized by pyruvate oxidase via enzyme reactions to generate color (λ = 570 nm) and fluorescence (at Ex/Em = 535/587 nm). Since the color or fluorescence intensity is proportional to pyruvate content, the pyruvate concentration can be

accurately measured.

The kit detects 1-200 µM pyruvate.

Pyruvate assay protocol summary:

- add samples and standards to wells
- add reaction mix and incubate for 30 min at room temp
- analyze with microplate reader

特記事項 This product is manufactured by BioVision, an Abcam company and was previously called K609

Pyruvate Colorimetric/Fluorometric Assay Kit. K609-100 is the same size as the 100 test size of

ab65342.

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.

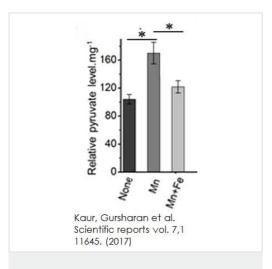
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内容	100 tests	2000 tests
Assay Buffer IV	1 x 25ml	20 x 25ml
Development Enzyme Mix I	1 vial	20 vials
OxiRed Probe	1 x 200µl	20 x 200μl
Pyruvate Standard	1 x 100µl	20 x 100μl

関連性

Pyruvate is a key intersection molecule in the network of metabolic pathways. Pyruvate can be made from glucose through glycolysism converted back to carbohydrates via gluconeogenesis, or to fatty acids or energy via acetyl CoA. It can also be used to construct the amino acid alanine and be converted to ethanol. Glucose is converted to pyruvate which is then converted into acetyl CoA, the main input for the citric acid cycle (TCA). If insufficent oxygen is available, pyruvate breaks down anaerobically, creating lactate in animals and ethanol in plants and microorganisms.

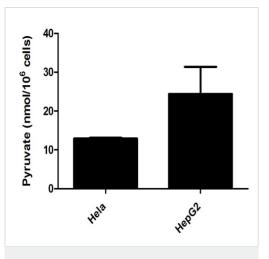
画像



Functional Studies - Pyruvate Assay Kit (ab65342)

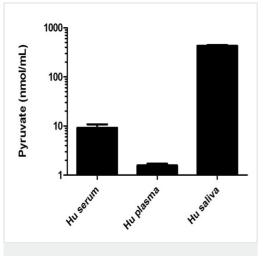
Kaur, Gursharan et al., Scientific reports vol. 7,1 11645., Fig 2, doi:10.1038/s41598-017-12004-3

Pyruvate levels under manganese stress and iron supplementation were measured with ab65342 and the results were plotted as a function of normalized absorbance at 450 nm per milligram of cellular proteins.

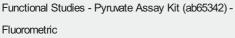


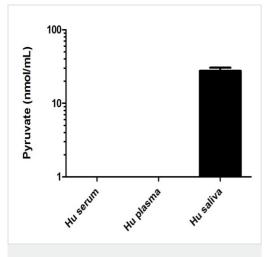
Pyruvate measured fluorometrically in biological fluids showing quantity (nmol) per mln of tested cells

Functional Studies - Pyruvate Assay Kit (ab65342) - Fluorometric



Pyruvate measured fluorometrically in biological fluids showing quantity (nmol) per mL of tested sample

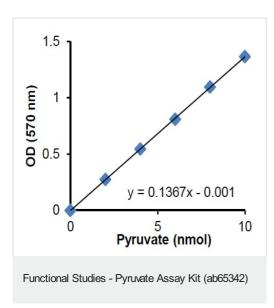




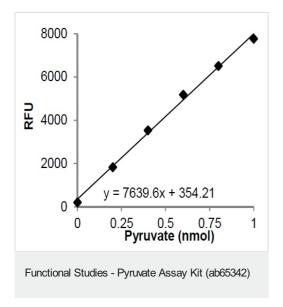
quantity (nmol) per mL of tested sample

Pyruvate measured colourimetrically in biological fluids showing

Functional Studies - Pyruvate Assay Kit (ab65342) - Colourimetric



Pyruvate colorimetric standard curve.



Pyruvate fluorometric standard curve.

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