abcam

Product datasheet

Glucose-6-Phosphate Assay Kit (Colorimetric) ab83426

17 References 画像数 2

製品の概要

製品名 Glucose-6-Phosphate Assay Kit (Colorimetric)

検出方法 Colorimetric

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

アッセイタイプ Quantitative

検出感度 10 μM

検出範囲 1 μM - 30 μM

全工程の試験時間 0h 40m

製品の概要 Glucose-6-Phosphate Assay Kit (Colorimetric) (ab83426) is a simple, sensitive and rapid test to

quantify glucose-6-phospate (G6P) in a variety of samples. In the assay, glucose-6-phosphate is oxidized into an intermediate product which in turn converts the probe into an intensely colored product with an absorbance at OD=450 nm. This product can detect G6P in the range of 1-30

nmoles with a detection sensitivity ~10 µM G6P.

For higher sensitivity, we recommend our fluorometric assay **Glucose-6-Phosphate Assay Kit-**

<u>High Sensitivity (Fluorometric) (ab107923)</u>. Visit our <u>FAQs page</u> for tips and troubleshooting.

特記事項 This product is manufactured by BioVision, an Abcam company and was previously called K657

Glucose-6-Phosphate Colorimetric Assay Kit. K657-100 is the same size as the 100 test size of

ab83426.

Glucose-6-phosphate (G6P) is a key sugar intermediate for glucose to get into cells, and then enter either metabolic pathways or storage. G6P can enter the glycolytic pathway, the pentose phosphate shunt or be stored as glycogen or starch. G6P is transformed by G6PDH to generate reducing equivalents in the form of NADPH. This is particularly important in red blood cells where

a G6PDH deficiency leads to hemolytic anemia.

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.

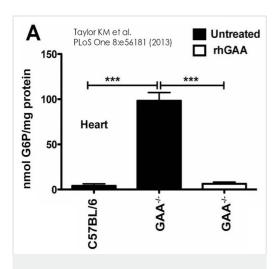
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内容	100 tests
Assay Buffer II	1 x 25ml
Developer Solution III	1 vial
Development Enzyme Mix IX	1 vial
G6P Standard	1 vial

関連性

Glucose 6 phosphate (G6P) is a key sugar intermediate for glucose to get into cells, and then enter either metabolic pathways or storage. G6P can enter the glycolytic pathway, the pentose phosphate shunt or be stored as glycogen or starch. G6P is utilized by its dehydrogenase to generate reducing equivalents in the form of NADPH. This is particularly important in red blood cells where a G6PDH deficiency leads to hemolytic anemia.

画像



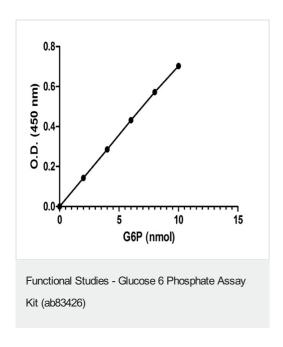
Functional Studies - Glucose 6 Phosphate Assay

Kit (ab83426)

Image from Taylor KMet al., PLoS One. 2013;8(2):e56181. Fig 6(A).; doi: 10.1371/journal.pone.0056181. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

G6P (A) levels are elevated in GAA^{-/-} mice compared to wild type (C57/Bl6) and reduced by rhGAA treatment.

GAA^{-/-} mice were dosed with rhGAA. G6P was quantified in heart and triceps homogenates from wild type (C57Bl/6) and GAA^{-/-} mice using ab83426. Values are means ± SEM. Data was analyzed by one-way ANOVA followed by Newman-Keuls comparing groups. ****P*<0.001.



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

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