

Glyceraldehyde 3 Phosphate Dehydrogenase Activity Assay Kit (Colorimetric) ab204732

★★★★★ [1 Abreviews](#) [33 References](#) [画像数 3](#)

製品の概要

製品名	Glyceraldehyde 3 Phosphate Dehydrogenase Activity Assay Kit (Colorimetric)
検出方法	Colorimetric
サンプルの種類	Tissue, Adherent cells, Suspension cells
アッセイタイプ	Enzyme activity
全工程の試験時間	0h 20m
種交差性	交差種: Mammals, Other species
製品の概要	<p>Glyceraldehyde 3 Phosphate Dehydrogenase Activity Assay Kit (Colorimetric) (ab204732) provides a simple and sensitive method for monitoring GAPDH activity in various samples. In this assay, GAPDH catalyzes conversion of GAP into BPG and an intermediate, which reacts with a developer to form a colored product that absorbs maximally at 450 nm. Our high-throughput adaptable assay can detect GAPDH activity as low as 100 μU/mL in a variety of samples.</p> <p>GAPDH assay protocol summary:</p> <ul style="list-style-type: none">- add samples and standards to wells- add reaction mix- analyze with microplate reader for 10 min every 2-3 min
特記事項	<p>This product is manufactured by BioVision, an Abcam company and was previously called K680 GAPDH Activity Assay Kit. K680-100 is the same size as the 100 test size of ab204732.</p> <p>GAPDH (Glyceraldehyde-3-Phosphate Dehydrogenase; EC 1.2.1.12) catalyzes the conversion of Glyceraldehyde-3-Phosphate (GAP) to 1, 3-Bisphosphate Glycerate (BPG) and plays a key role in glycolysis. The enzyme is involved in cellular processes such as apoptosis, membrane trafficking, iron metabolism and nuclear translocation. GAPDH (housekeeping gene) expression is stable and constitutive. Deregulation of GAPDH activity is associated with abnormal cell proliferation and carcinogenesis. Accurate quantitation of GAPDH activity is important for diagnosing diseases and studying normal cellular physiology.</p>
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.

内容	100 tests
Assay Buffer IV	1 x 25ml
Developer Solution III	1 vial
GAPDH Positive Control	1 vial
Glyceraldehyde-3-Phosphate	1 x 200µl
NADH Standard I	1 vial

機能

Has both glyceraldehyde-3-phosphate dehydrogenase and nitrosylase activities, thereby playing a role in glycolysis and nuclear functions, respectively. Participates in nuclear events including transcription, RNA transport, DNA replication and apoptosis. Nuclear functions are probably due to the nitrosylase activity that mediates cysteine S-nitrosylation of nuclear target proteins such as SIRT1, HDAC2 and PRKDC (By similarity). Glyceraldehyde-3-phosphate dehydrogenase is a key enzyme in glycolysis that catalyzes the first step of the pathway by converting D-glyceraldehyde 3-phosphate (G3P) into 3-phospho-D-glyceroyl phosphate.

パスウェイ

Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 1/5.

配列類似性

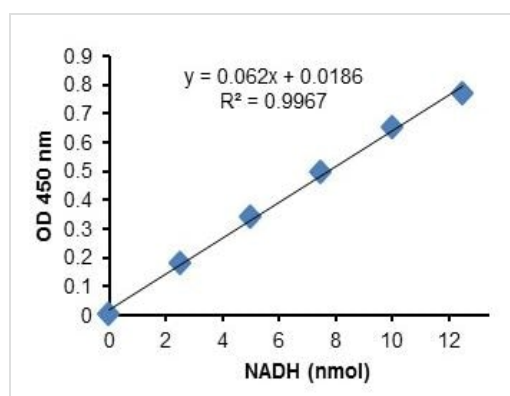
Belongs to the glyceraldehyde-3-phosphate dehydrogenase family.

翻訳後修飾

S-nitrosylation of Cys-152 leads to interaction with SIAH1, followed by translocation to the nucleus.
ISGylated.

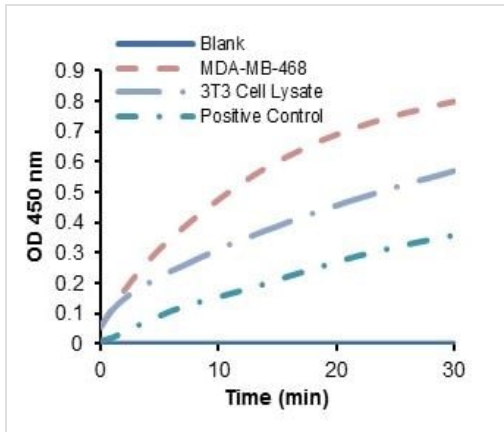
細胞内局在

Cytoplasm > cytosol. Nucleus. Cytoplasm > perinuclear region. Membrane. Translocates to the nucleus following S-nitrosylation and interaction with SIAH1, which contains a nuclear localization signal (By similarity). Postnuclear and Perinuclear regions.

画像

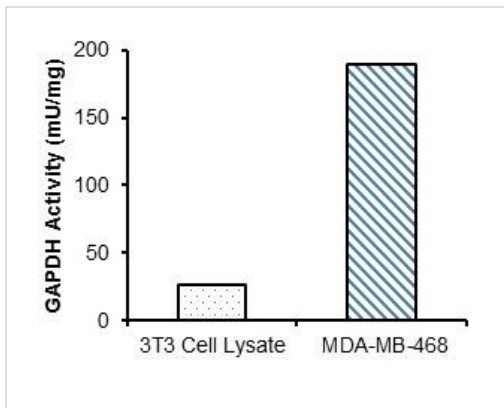
Typical NADH Standard Curve.

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GAPDH activity in the Positive Control, 3T3 cells lysate and MDA-MB-468 cells lysate.

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GAPDH specific activity calculated from 3T3 cell lysate (11.1 μ g protein), and MDA-MB-468 cell lysate (2.76 μ g protein).

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