

# Glyceraldehyde 3 Phosphate Dehydrogenase Activity Assay Kit (Colorimetric) ab204732

★★★★★ [1 Abreviews](#) [33 References](#) [3 图像](#)

### 概述

产品名称	Glyceraldehyde 3 Phosphate Dehydrogenase Activity Assay试剂盒(Colorimetric)
检测方法	Colorimetric
样品类型	Tissue, Adherent cells, Suspension cells
检测类型	Enzyme activity
检测时间	0h 20m
种属反应性	<b>与反应:</b> Mammals, Other species
产品概述	<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 <math>\mu</math>U/mL in a variety of samples.</p> <p>GAPDH assay protocol summary:</p> <ul style="list-style-type: none"><li>- add samples and standards to wells</li><li>- add reaction mix</li><li>- analyze with microplate reader for 10 min every 2-3 min</li></ul>
说明	<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>
平台	Microplate reader

### 性能

**存放说明**

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

组件	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

**功能**

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.

**通路**

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

**序列相似性**

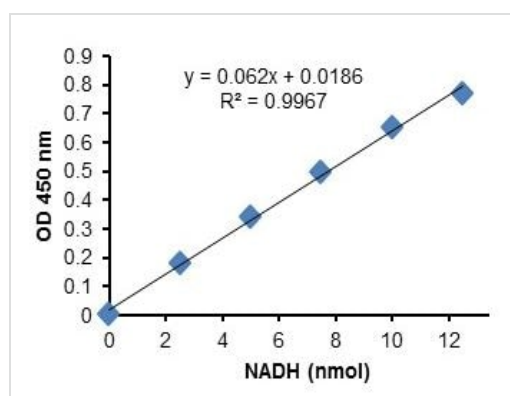
Belongs to the glyceraldehyde-3-phosphate dehydrogenase family.

**翻译后修饰**

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

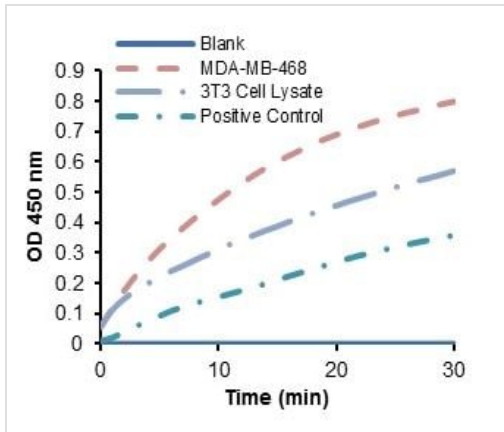
**细胞定位**

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.

**图片**

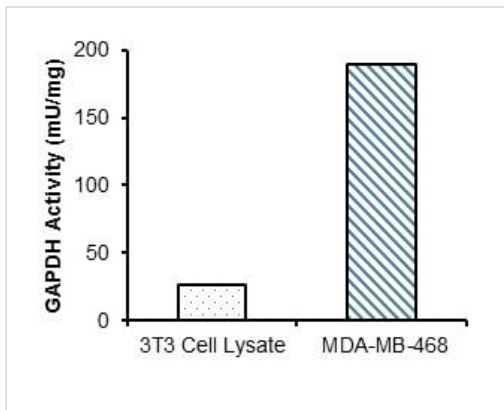
Typical NADH Standard Curve.

Glyceraldehyde 3 Phosphate Dehydrogenase  
Activity Assay Kit (Colorimetric) (ab204732)



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  $\mu$ g protein), and MDA-MB-468 cell lysate (2.76  $\mu$ g protein).

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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