

### Glycogen Assay Kit ab65620

[135 References](#) [4 图像](#)

#### 概述

产品名称	Glycogen Assay试剂盒
检测方法	Colorimetric/Fluorometric
样品类型	Cell culture supernatant, Urine, Other biological fluids, Tissue
检测类型	Quantitative
灵敏度	> 0.04 µg/ml
范围	40 ng/well - 2000 ng/well
检测时间	1h 00m
产品概述	Glycogen Assay Kit ab65620 is an easy and accurate assay to measure glycogen levels in biological samples. In the glycogen assay protocol, glucoamylase hydrolyzes the glycogen to glucose which is then specifically oxidized to produce a product that reacts with OxiRed probe to generate color (570 nm) and fluorescence (Ex 535/Em 587). The assay can detect glycogen 0.04 to 2 µg/well.

Glycogen assay protocol summary:

- add samples and standards to wells
- add hydrolysis enzyme mix and incubate for 30 min
- add reaction mix and incubate for 30 min
- analyze with microplate reader

If your sample is likely to contain reducing substances, we recommend using **Glycogen Assay Kit II (ab169558)**, as reducing substances may interfere with the assay detection method.

#### 说明

This product is manufactured by BioVision, an Abcam company and was previously called K646 Glycogen Colorimetric/Fluorometric Assay Kit. K646-100 is the same size as the 100 test size of ab65620.

Review our **Metabolism Assay Guide** to learn about assays for metabolites, metabolic enzymes, mitochondrial function, and oxidative stress, and also about how to assay metabolic function in live cells using your plate reader.

#### How other researchers have used Glycogen Assay Kit ab65620

The glycogen assay kit has been used in publications in a variety of sample types, including:

- Human: muscle tissue<sup>1</sup>
- Mouse: muscle tissue lysates<sup>2</sup>, muscle and liver tissue<sup>3</sup>, liver<sup>4</sup>, cultured muscle myotubes<sup>5</sup>,

astrocyte primary cell lysates<sup>6</sup>,  
 - Rat: liver<sup>7</sup>, neuron-astrocyte co-cultures<sup>8</sup>  
 - Bacteria: *M. buryatense*<sup>9</sup>, *Haemophilus influenzae*<sup>10</sup>

References: 1 - Vaughan D et al 2016, Trewin AJ et al 2015; 2 - Baligand C et al 2017, Riedl et al 2016, Wicks SE et al 2015, Todd AG et al 2015, Lundell LS et al 2019, Kim HY et al 2016, Amoasii et al 2016; 3 - Xirouchaki CE et al 2016, Pamir N et al 2015, Zachwieja NJ et al 2016; 4 - Pursell et al 2018; 5 - Park Met al 2016; 6 - Choudhury GR et al 2015; 7 - Xiang L et al 2014, Guo J et al 2018; 8 - Sobieski C et al 2018; 9 - Puri AW et al 2015; 10 - Wu S et al 2014

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.  
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**平台** Microplate reader

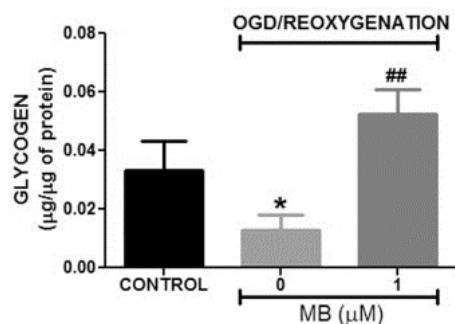
## 性能

**存放说明** Store at -20°C. Please refer to protocols.

组件	100 tests	2000 tests
Assay Buffer II	1 x 25ml	20 x 25ml
Assay Buffer VIII	1 x 25ml	20 x 25ml
Development Enzyme Mix II	1 vial	20 vials
Glycogen Standard	1 x 100µl	20 x 100µl
Hydrolysis Enzyme Mix I	1 vial	20 vials
OxiRed Probe	1 x 200µl	20 x 200µl

**相关性** Glycogen is the primary short term energy storage molecule in animals. It is synthesized primarily in the liver and muscle. Glycogen is a highly branched polymer of glucose molecules, connected with an alpha-1,4 linkage, branching via an alpha-1,6 linkage. Abnormal ability to utilize glycogen is found in diabetes and in several genetic glycogen storage diseases.

## 图片

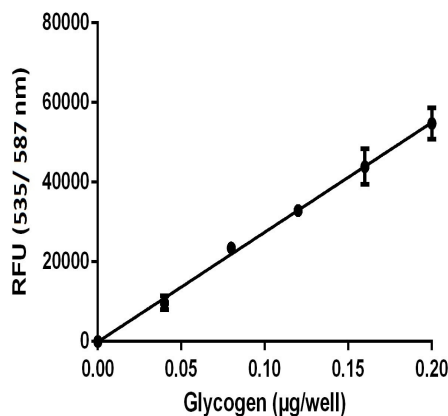


Roy Choudhury G et al., PLoS One 10:e0123096 (2015).

#### Functional studies - ab65620

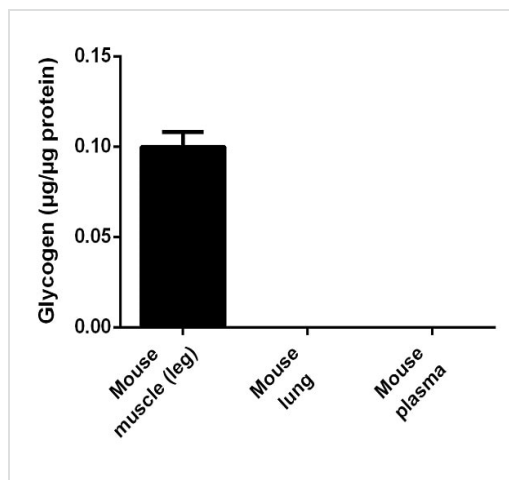
Image from Roy Choudhury G et al., PLoS One 10(4), Fig 6c. Doi: 10.1371/journal.pone.0123096. Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>

Total glycogen levels in C576bL6 mice astrocytes were determined by using Glycogen assay kit (ab65620). At 24 hours following OGD-reoxygenation, astrocytes had less glycogen levels compared to normoxia control. Astrocytes treated with Methylene blue (MB) showed a higher glycogen content compared to non-MB treated, OGD-reoxygenation astrocytes. \*  $p < 0.05$ ; ##  $p < 0.001$  Vs. OGD-reoxygenation control / 0 µM MB.



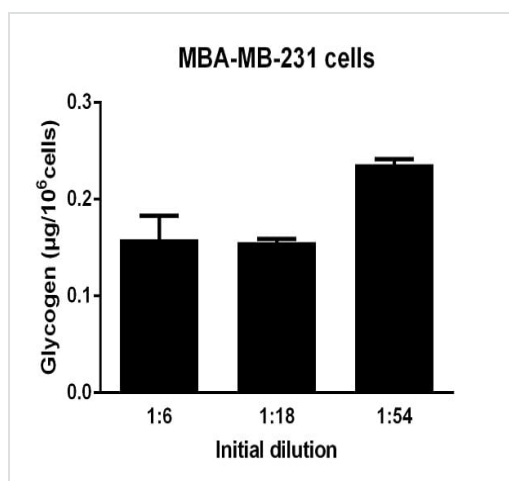
Example of fluorometric standard curve using Glycogen Assay Kit (ab65620).

#### Functional Studies - Glycogen Assay Kit



Measurement of glycogen in various mouse tissues using Glycogen Assay Kit (ab65620).

Functional Studies - Glycogen Assay Kit (ab65620)



Glycogen concentration measured in MBA-MB-231 cells (human breast adenocarcinoma cell line). 10<sup>6</sup> cells were prepared following protocol instructions, and several dilutions were measured using fluorometric detection.

Functional Studies - Glycogen Assay Kit (ab65620)

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