abcam

Product datasheet

# Human GYS1 (Glycogen synthase 1) knockout HeLa cell line ab265388

2 图像

## 概述

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|---|---|
| **产品名称** | 人GYS1 (Glycogen synthase 1) knockout HeLa cell line |
| **Parental Cell Line** | HeLa |
| **Organism** | Human |
| **Mutation description** | Knockout achieved by using CRISPR/Cas9, Homozygous: 1 bp deletion in exon 1 |
| **Passage number** | <20 |
| **Knockout validation** | Sanger Sequencing, Western Blot (WB) |
| **经测试应用** | **适用于:** WB |
| **Biosafety level** | 2 |
| **常规说明** | **Recommended control:** Human wild-type HeLa cell line (**ab255928**). Please note a wild-type cell line is not automatically included with a knockout cell line order, if required please add recommended wild-type cell line at no additional cost using the code WILDTYPE-TMTK1.<br><br>**Cryopreservation cell medium:** Cell Freezing Medium-DMSO Serum free media, contains 8.7% DMSO in MEM supplemented with methyl cellulose.<br><br>**Culture medium:** DMEM (High Glucose) + 10% FBS<br><br>**Initial handling guidelines:** Upon arrival, the vial should be stored in liquid nitrogen vapor phase and not at -80°C. Storage at -80°C may result in loss of viability.<br><br>1. Thaw the vial in 37°C water bath for approximately 1-2 minutes.<br>2. Transfer the cell suspension (0.8 mL) to a 15 mL/50 mL conical sterile polypropylene centrifuge tube containing 8.4 mL pre-warmed culture medium, wash vial with an additional 0.8 mL culture medium (total volume 10 mL) to collect remaining cells, and centrifuge at 201 x g (rcf) for 5 minutes at room temperature. 10 mL represents minimum recommended dilution. 20 mL represents maximum recommended dilution.<br>3. Resuspend the cell pellet in 5 mL pre-warmed culture medium and count using a haemocytometer or alternative cell counting method. Based on cell count, seed cells in an appropriate cell culture flask at a density of $2x10^4$ cells/$cm^2$. Seeding density is given as a guide only and should be scaled to align with individual lab schedules.<br>4. Incubate the culture at 37°C incubator with 5% $CO_2$. Cultures should be monitored daily.<br><br>**Subculture guidelines:**<br><br>All seeding densities should be based on cell counts gained by established methods.<br>A guide seeding density of $2x10^4$ cells/$cm^2$ is recommended. |

A partial media change 24 hours prior to subculture may be helpful to encourage growth, if required.
Cells should be passaged when they have achieved 80-90% confluence.
This product is subject to limited use licenses from The Broad Institute and ERS Genomics Limited, and is developed with patented technology. For full details of the limited use licenses and relevant patents please refer to our **limited use license** and **patent pages**.

We will provide viable cells that proliferate on revival.

## 性能

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|---|---|
| **Number of cells** | 1 x $10^6$ cells/vial, 1 mL |
| **Adherent /Suspension** | Adherent |
| **Tissue** | Cervix |
| **Cell type** | epithelial |
| **Disease** | Adenocarcinoma |
| **Gender** | Female |
| **STR Analysis** | Amelogenin X D5S818: 11, 12 D13S317: 12, 13.3 D7S820: 8, 12 D16S539: 9, 10 vWA: 16, 18 TH01: 7 TPOX: 8,12 CSF1PO: 9, 10 |
| **Antibiotic resistance** | Puromycin 1.00µg/ml |
| **Mycoplasma free** | Yes |
| **存放说明** | Shipped on Dry Ice. Store in liquid nitrogen. |
| **存储溶液** | Constituents: 8.7% Dimethylsulfoxide, 2% Cellulose, methyl ether |

## 靶标

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| **功能** | Transfers the glycosyl residue from UDP-Glc to the non-reducing end of alpha-1,4-glucan. |
| **通路** | Glycan biosynthesis; glycogen biosynthesis. |
| **疾病相关** | Defects in GYS1 are the cause of muscle glycogen storage disease type 0 (GSD0b) [MIM:611556]; also known as muscle glycogen synthase deficiency. GSD0b is a metabolic disorder characterized by fasting hypoglycemia presenting in infancy or early childhood. The role of muscle glycogen is to provide critical energy during bursts of activity and sustained muscle work. |
| **序列相似性** | Belongs to the glycosyltransferase 3 family. |

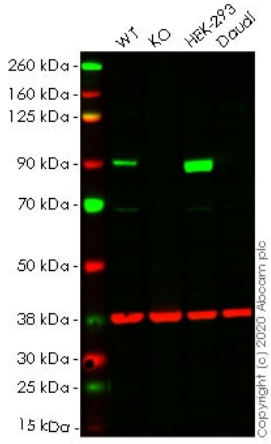
## 应用

**The Abpromise guarantee** **Abpromise™承诺保证使用ab265388于以下的经测试应用**

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

| 应用 | Ab评论 | 说明 |
|---|---|---|
| **WB** | | Use at an assay dependent concentration. Predicted molecular weight: 84 kDa. |

## 图片




Western blot - Human GYS1 knockout HeLa cell line (ab265388)

**All lanes :** Anti-Glycogen synthase 1/GYS1 antibody [EP817Y] (**ab40810**) at 1/10000 dilution

**Lane 1 :** Wild-type HeLa lysate
**Lane 2 :** Glycogen synthase 1/GYS1 knockout HeLa lysate
**Lane 3 :** HEK-293 lysate
**Lane 4 :** Daudi lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 84 kDa
**Observed band size:** 80 kDa

**Lanes 1-4:** Merged signal (red and green). Green - **ab40810** observed at 80 kDa. Red - loading control **ab8245** observed at 37 kDa.

**ab40810** Recombinant Anti-Glycogen synthase 1/GYS1 antibody [EP817Y] was shown to specifically react with Glycogen synthase 1/GYS1 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265388 (knockout cell lysate **ab257462**) was used. Wild-type and Glycogen synthase 1/GYS1 knockout samples were subjected to SDS-PAGE. **ab40810** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 10000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.


Sanger Sequencing - Human GYS1 knockout HeLa cell line (ab265388)

Homozygous: 1 bp deletion in exon 1.

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

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