abcam

Product datasheet

Human VDAC1 (Porin) knockout HEK-293T cell line ab255444

3 图像

概述

产品名称	人VDAC1 (Porin) knockout HEK-293T cell line
Parental Cell Line	HEK293T
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, Homozygous: 2 bp deletion in exon 2
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 HEK293T cell line (**ab255449**). 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. **Cryopreservation cell medium:** Cell Freezing Medium-DMSO Serum free media, contains 8.7% DMSO in MEM supplemented with methyl cellulose. **Culture medium:** DMEM (High Glucose) + 10% FBS **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. 1. Thaw the vial in 37°C water bath for approximately 1-2 minutes. 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. 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. 4. Incubate the culture at 37°C incubator with 5% CO_2. Cultures should be monitored daily. **Subculture guidelines:** All seeding densities should be based on cell counts gained by established methods. 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

Number of cells	1 x 10^6 cells/vial, 1 mL
Adherent /Suspension	Adherent
Tissue	Kidney
Cell type	epithelial
STR Analysis	Amelogenin X D5S818: 8, 9 D13S317: 12, 14 D7S820: 11 D16S539: 9, 13 vWA: 16, 19 TH01: 7, 9.3 TPOX: 11 CSF1PO: 11, 12
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

功能	Forms a channel through the mitochondrial outer membrane and also the plasma membrane. The channel at the outer mitochondrial membrane allows diffusion of small hydrophilic molecules; in the plasma membrane it is involved in cell volume regulation and apoptosis. It adopts an open conformation at low or zero membrane potential and a closed conformation at potentials above 30-40 mV. The open state has a weak anion selectivity whereas the closed state is cation-selective. May participate in the formation of the permeability transition pore complex (PTPC) responsible for the release of mitochondrial products that triggers apoptosis.
组织特异性	Heart, liver and skeletal muscle.
序列相似性	Belongs to the eukaryotic mitochondrial porin family.
结构域	Consists mainly of a membrane-spanning beta-barrel formed by 19 beta-strands. The helical N-terminus folds back into the pore opening and plays a role in voltage-gated channel activity.
细胞定位	Mitochondrion outer membrane. Cell membrane.

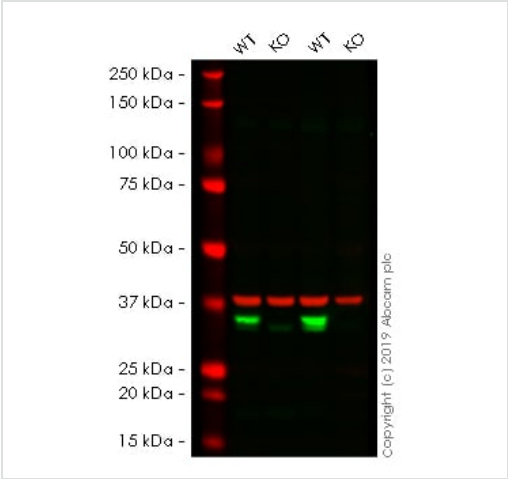
应用

The Abpromise guarantee **Abpromise™承诺保证使用ab255444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: 31 kDa.

图片



Western blot - Human VDAC1 knockout HEK293T cell line (ab255444)

All lanes : Anti-VDAC1/Porin + VDAC3 antibody [20B12AF2] (**ab14734**) at 1/1000 dilution

Lane 1 : Wild-type Hap1 cell lysate
Lane 2 : VDAC1 knockout Hap1 cell lysate
Lane 3 : Wild-type HEK-293T cell lysate
Lane 4 : VDAC1 knockout HEK-293T cell lysate

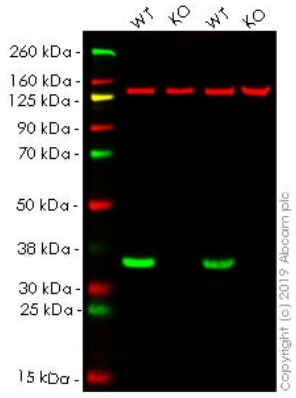
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (**ab216772**) at 1/20000 dilution

Predicted band size: 31 kDa
Additional bands at: 37 kDa (possible Loading Control)

Lanes 1 - 4: Merged signal (red and green). Green - **ab14734** observed at 31 kDa. Red - loading control, **ab181602** observed at 37 kDa.

ab14734 was shown to react with VDAC1 / Porin in wild-type HEK-293T cells. Loss of signal was observed when knockout cell line ab255444 (knockout cell lysate **ab263839**) was used. Wild-type and VDAC1 / Porin knockout samples were subjected to SDS-PAGE. **ab14734** and Anti-GAPDH antibody [EPR16891] - Loading Control (**ab181602**) were incubated overnight at 4°C at 1 in 1000 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.



Western blot - Human VDAC1 knockout HEK293T cell line (ab255444)

All lanes : Anti-VDAC1/Porin + VDAC2 antibody [EPR10852(B)] - Mitochondrial Loading Control (**ab154856**) at 1/1000 dilution

Lane 1 : Wild-type Hap1 cell lysate
Lane 2 : VDAC1 knockout Hap1 cell lysate
Lane 3 : Wild-type HEK-293T cell lysate
Lane 4 : VDAC1 knockout HEK-293T cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/20000 dilution

Predicted band size: 31 kDa
Additional bands at: 124 kDa (possible Loading Control)

Lanes 1 - 4: Merged signal (red and green). Green - **ab154856** observed at 31 kDa. Red - loading control, **ab8245** observed at 37 kDa.

ab154856 was shown to react with VDAC1 / Porin in wild-type HEK-293T. Loss of signal was observed when knockout cell line ab255444 (knockout cell lysate **ab263839**) was used. Wild-type and VDAC1 / Porin knockout samples were subjected to SDS-PAGE. **ab154856** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 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 VDAC1 knockout HEK293T cell line (ab255444)

Homozygous: 2 bp deletion in exon2

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

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