abcam

Product datasheet

Human VDR (Vitamin D Receptor) knockout HeLa cell line ab265430

画像数 3

製品の概要

製品名	Human VDR (Vitamin D Receptor) knockout HeLa cell line
Parental Cell Line	HeLa
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, 1 bp insertion in exon 3 and 2 bp deletion in exon 3
Passage number	<20
Knockout validation	Sanger Sequencing, Western Blot (WB)
アプリケーション	**適用あり:** WB
Biosafety level	2
特記事項	**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. **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.
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We will provide viable cells that proliferate on revival.

製品の特性

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
保存方法	Shipped on Dry Ice. Store in liquid nitrogen.
バッファー	Constituents: 8.7% Dimethylsulfoxide, 2% Cellulose, methyl ether

ターゲット情報

機能	Nuclear hormone receptor. Transcription factor that mediates the action of vitamin D3 by controlling the expression of hormone sensitive genes. Regulates transcription of hormone sensitive genes via its association with the WINAC complex, a chromatin-remodeling complex. Recruited to promoters via its interaction with the WINAC complex subunit BAZ1B/WSTF, which mediates the interaction with acetylated histones, an essential step for VDR-promoter association. Plays a central role in calcium homeostasis.
関連疾患	Defects in VDR are the cause of rickets vitamin D-dependent type 2A (VDDR2A) [MIM:277440]. A disorder of vitamin D metabolism resulting in severe rickets, hypocalcemia and secondary hyperparathyroidism. Most patients have total alopecia in addition to rickets.
配列類似性	Belongs to the nuclear hormone receptor family. NR1 subfamily. Contains 1 nuclear receptor DNA-binding domain.
ドメイン	Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.
細胞内局在	Nucleus.

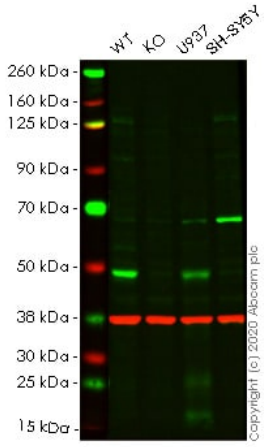
アプリケーション

The Abpromise guarantee	**Abpromise保証は、次のテスト済みアプリケーションにおけるab265430の使用に適用されます**

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		Use at an assay dependent concentration. Predicted molecular weight: 48 kDa.

画像



Western blot - Human VDR knockout HeLa cell line (ab265430)

All lanes : Anti-Vitamin D Receptor antibody [EPR4552] - ChIP Grade (**ab109234**) at 1/1000 dilution

Lane 1 : Wild-type HeLa lysate
Lane 2 : Vitamin D Receptor knockout HeLa lysate
Lane 3 : U-937 lysate
Lane 4 : SH-SY5Y lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 48 kDa

Lanes 1-4: Merged signal (red and green). Green - **ab109234** observed at 50 kDa. Red - loading control **ab8245** observed at 37 kDa.

ab109234 Anti-Vitamin D Receptor antibody [EPR4552] - ChIP Grade was shown to specifically react with Vitamin D Receptor in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265430 (knockout cell lysate **ab257796**) was used. Wild-type and Vitamin D Receptor knockout samples were subjected to SDS-PAGE. **ab109234** 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 VDR knockout HeLa cell line (ab265430)

Allele-1: 2 bp deletion in exon 3.

Sanger Sequencing - Human VDR knockout HeLa cell line (ab265430)

Allele-2: 1 bp insertion in exon 3.

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