

Human TGM2 (Transglutaminase 2) knockout HeLa cell line ab265245

2 Images

Overview

Product name	Human TGM2 (Transglutaminase 2) knockout HeLa cell line
Parental Cell Line	HeLa
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, Homozygous: 2 bp deletion in exon 7
Passage number	<20
Knockout validation	Sanger Sequencing, Western Blot (WB)
Tested applications	Suitable for: WB
Biosafety level	2
General notes	<p>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.</p> <p>Cryopreservation cell medium: Cell Freezing Medium-DMSO Serum free media, contains 8.7% DMSO in MEM supplemented with methyl cellulose.</p> <p>Culture medium: DMEM (High Glucose) + 10% FBS</p> <p>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.</p> <ol style="list-style-type: none"> 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 2×10^4 cells/cm². 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% CO₂. Cultures should be monitored daily. <p>Subculture guidelines:</p> <p>All seeding densities should be based on cell counts gained by established methods. A guide seeding density of 2×10^4 cells/cm² is recommended.</p>

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.

Properties

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 WWA: 16, 18 TH01: 7 TPOX: 8,12 CSF1PO: 9, 10
Antibiotic resistance	Puromycin 1.00µg/ml
Mycoplasma free	Yes
Storage instructions	Shipped on Dry Ice. Store in liquid nitrogen.
Storage buffer	Constituents: 8.7% Dimethylsulfoxide, 2% Cellulose, methyl ether

Target

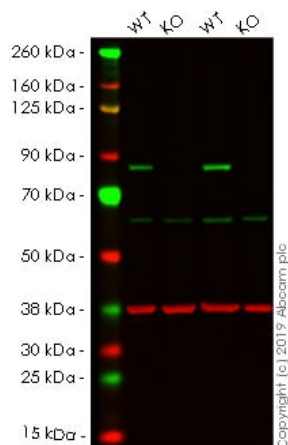
Function	Catalyzes the cross-linking of proteins and the conjugation of polyamines to proteins.
Sequence similarities	Belongs to the transglutaminase superfamily. Transglutaminase family.

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab265245 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 77 kDa.

Images



Western blot - Human TGM2 (Transglutaminase 2) knockout HeLa cell line (ab265245)

All lanes : Anti-Transglutaminase 2 antibody [EP2957] ([ab109200](#)) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : TGM2 knockout HeLa cell lysate

Lane 3 : Wild-type A549 cell lysate

Lane 4 : TGM2 knockout A549 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

Performed under reducing conditions.

Predicted band size: 77 kDa

Observed band size: 77 kDa

Lanes 1-4: Merged signal (red and green). Green - [ab109200](#) observed at 77 kDa. Red - loading control [ab8245](#) observed at 37 kDa.

[ab109200](#) Anti-Transglutaminase 2 antibody [EP2957] was shown to specifically react with Transglutaminase 2 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265245 (knockout cell lysate [ab257085](#)) was used. Wild-type and Transglutaminase 2 knockout samples were subjected to SDS-PAGE. [ab109200](#) and Anti-alpha Tubulin antibody [EP1332Y] - Microtubule Marker ([ab52866](#)) 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.

Mut	CACCCCGCTTTCACCTCCTCCAACAG--CTGAGGTGCCTGGGCATCCCTACCCGCGTC
WT	CACCCCGCTTTCACCTCCTCCAACAGTGTGAGGTGCCTGGGCATCCCTACCCGCGTC

Homozygous: 2 bp deletion in exon 7.

Sanger Sequencing - Human TGM2 knockout HeLa
cell line (ab265245)

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