

## Product datasheet

# Human NEK7 knockout HeLa cell line ab264805

2 Images

### Overview

<b>Product name</b>	Human NEK7 knockout HeLa cell line
<b>Parental Cell Line</b>	HeLa
<b>Organism</b>	Human
<b>Mutation description</b>	Knockout achieved by using CRISPR/Cas9, 4 bp deletion in exon 16 and 5 bp deletion in exon 16
<b>Passage number</b>	<20
<b>Knockout validation</b>	Sanger Sequencing
<b>Biosafety level</b>	2

**General notes**

**Recommended control:** Human wild-type HeLa cell line ([ab255448](#)). 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 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 ([Click here to view haemocytometer protocol](#)) or alternative cell counting method. Based on cell count, seed cells in an appropriate cell culture flask at a density of  $2 \times 10^4$  cells/cm<sup>2</sup>. This should allow for confluency within 48 hours. 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<sub>2</sub>. 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  $2 \times 10^4$  cells/cm<sup>2</sup> is recommended for confluency (80-90% confluence) within 48 hours.

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.

[Click here to view the Mammalian cell tissue culture protocol](#)

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## Properties

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<b>Number of cells</b>	1 x 10 <sup>6</sup> cells/vial, 1 mL
<b>Viability</b>	~90%
<b>Adherent /Suspension</b>	Adherent
<b>Tissue</b>	Cervix
<b>Cell type</b>	epithelial
<b>Disease</b>	Adenocarcinoma
<b>Gender</b>	Female
<b>STR Analysis</b>	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
<b>Antibiotic resistance</b>	Puromycin 1.00µg/ml
<b>Mycoplasma free</b>	Yes
<b>Storage instructions</b>	Shipped on Dry Ice. Store in liquid nitrogen.
<b>Storage buffer</b>	Constituents: 8.7% DMSO, 2% Cellulose, methyl ether

## Target

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<b>Tissue specificity</b>	Highly expressed in lung, muscle, testis, brain, heart, liver, leukocyte and spleen. Lower expression in ovary, prostate and kidney. No expression seen in small intestine.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. NEK Ser/Thr protein kinase family. NIMA subfamily. Contains 1 protein kinase domain.
<b>Cellular localization</b>	Cytoplasm.

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## Images

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Mut	CCTGTTGCTTCAGACAATGGATGAG-----ACAAGGAATGCAAGGGCCACCTGTTCTCTCA
WT	CCTGTTGCTTCAGACAATGGATGAGCAATCACAAAGGAATGCAAGGGCCACCTGTTCTCTCA

Sanger Sequencing - Human NEK7 knockout HeLa cell line (ab264805)

Allele-1: 5 bp deletion in exon 16.

Mut	CCTGTTGCTTCAGACAATGGATGAG---CACAAAGGAATGCAAGGGCCACCTGTTCTCA
WT	CCTGTTGCTTCAGACAATGGATGAGCAATCACAAAGGAATGCAAGGGCCACCTGTTCTCA

Allele-2: 4 bp deletion in exon 16.

Sanger Sequencing - Human NEK7 knockout HeLa  
cell line (ab264805)

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