# abcam

# Product datasheet

# Human MTX1 (MTX) knockout HEK-293T cell line ab266796

# 1 Image

#### Overview

Product name Human MTX1 (MTX) 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 1

Passage number <20

Knockout validation Sanger Sequencing

Biosafety level 2

General notes 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<sup>4</sup> cells/cm<sup>2</sup>. 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  $2x10^4$  cells/cm<sup>2</sup> is recommended.

A partial media change 24 hours prior to subculture may be helpful to encourage growth, if

1

required.

Cells should be passaged when they have achieved 80-90% confluence.

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relevant patents please refer to our limited use license and patent pages.

We will provide viable cells that proliferate on revival.

#### **Properties**

1 x 10<sup>6</sup> cells/vial, 1 mL **Number of cells** 

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

Storage instructions Shipped on Dry Ice. Store in liquid nitrogen.

Storage buffer Constituents: 8.7% Dimethylsulfoxide, 2% Cellulose, methyl ether

#### **Target**

**Function** Involved in transport of proteins into the mitochondrion. Essential for embryonic development.

Sequence similarities Belongs to the metaxin family.

Post-translational Ubiquitinated by PARK2 during mitophagy, leading to its degradation and enhancement of

modifications mitophagy. Deubiquitinated by USP30.

**Cellular localization** Membrane. Mitochondrion outer membrane.

#### **Images**



Homozygous: 2 bp deletion in exon 1

Sanger Sequencing - Human MTX1 knockout

HEK293T cell line (ab266796)

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