

Product datasheet

Human CCL3 (Macrophage Inflammatory Protein 1) knockout THP-1 cell line ab273760

1 Image

Overview

Product name	Human CCL3 (Macrophage Inflammatory Protein 1) knockout THP-1 cell line
Parental Cell Line	THP-1
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, Homozygous: 61 bp deletion in exon 1
Passage number	<20
Knockout validation	Sanger Sequencing
Biosafety level	1
General notes	<p>Recommended control: Human wild-type THP-1 cell line (ab275477). 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: RPMI + 10% FBS + 0.05 mM β-mercaptoethanol</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 2-4x10⁵ cells/mL. 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. 5. THP-1 cells recover slowly from cryopreservation and therefore may not be ready for subculture for a number of days. Cells should be left as much as possible over this time and only subcultured when the cell density reaches 8x10⁵ cells/mL. <p>Subculture guidelines:</p>

All seeding densities should be based on cell counts gained by established methods. Cells should be seeded at $2-4 \times 10^5$ cells/mL and subcultured when they have reached 8×10^5 cells/mL. It is not recommended to allow the cell density to exceed 1×10^6 cells/mL. 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	Suspension
Tissue	Blood
Cell type	acute monocytic leukemia
Disease	Acute Monocytic Leukemia
Gender	Male
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	Monokine with inflammatory and chemokinetic properties. Binds to CCR1, CCR4 and CCR5. One of the major HIV-suppressive factors produced by CD8+ T-cells. Recombinant MIP-1-alpha induces a dose-dependent inhibition of different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SIV).
Sequence similarities	Belongs to the intercrine beta (chemokine CC) family.
Post-translational modifications	N-terminal processed form LD78-alpha(4-69) is produced by proteolytic cleavage after secretion from HTLV1-transformed T-cells.
Cellular localization	Secreted.

Images

Allele-1: 61 bp deletion in exon 1

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WT  ACCTGCTCAGAATCATGCAGGTCTCCACTGCTGCCCTTGCTGTCCTCCTC
    |||
KO  ACCTGCTCAGAATCA-----

WT  TGCACCATGGCTCTCTGCAACCAGTTCTCTGCATCACGTGA
    |||
KO  -----CTCTGCATCACGTGA
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Sanger Sequencing - Human CCL3 (MIP-1 alpha)

knockout THP-1 cell line (ab273760)

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