Stem Cell Collection

NCBI Code: ES1

Designation: MUKF3

Species: mouse blastocyst

Tissue: Embryo Body(EB) spheroid but it makes clumps

Morphology: Embryo Body(EB) spheroid but it makes clumps

Description: cell line has been isolated from C57BL/6 mouse blastocyst which is the most standard strain in mouse genetics

Culture Medium: This cell line grown on mitotically inactivated mouse embryonic fibroblast (MEF) feeder + DMEM/F12 medium+15% ESC – qualified fetal calf serum + 0.1mM □- mercaptoethanol + 0.1mμnonessential amino acids + 1000 units/ml leukemia inhibitory factor+ 1mμ Sodium pyruvate+2 mM L-glutamine+100 units/ml penicillin + 100μg/ml streptomycin

Preservation Medium: embryonic culture + 10% DMSO

Subculture Routine: Split confluent cultures 1:3, ie seeding at 2 cells/60mm^2^5 using 0.05% trypsin /0.5 mM EDTA,5%CO2,37 □

Characterize: ICC , PCR and AL-P for pluripotent characterize were positive.

Sterility: Tests for mycoplasma, bacteria and fungi were negative.

ATCC Number: -

ECACC Number: -

Reference: Ali Ghanbari, MozafarKhazaei, Mahmoodhashemitabar,ArezoRabziamFardinFathi,Parvin-dokhtBayat. Sonic hedgehog inhibition induce mouse embryonic stem cells to differentiate toward definitive endoderm. Indian journal of Experimental Biology.2013: 51;201-207.

Viability: 98%

Comments: The cell lines and hybridomas in NCBI are obtained from local and world-wide sources. The quoted information are partly provided by the depositors or the cell banks where the cells were obtained from; therefore, these sources are responsible for validity of the information. Passage numbers are given when applicable and should only be considered as a guide. Hence, NCBI does not guarantee that the passage numbers of the cells the customers will receive are exactly the ones provided in the information.

NCBI Code: ES2

Designation: ES-C57BL/6

Species: C57BL/6J (B6) Mouse

Tissue: Embryo

Morphology: Spherical colony

Description: The clonal embryonic stem cell line #693 ES C57BL/6 was derived from a strain C57BL/6J (B6) mouse blastocyst. The ES cells were shown to populate the germ line of two host blastocyst donors, FVB/NJ (FVB) and the coisogenic strain C57BL/6-Tyrc-2J (c2J). Coat-color chimera production was high using c2J blastocysts while FVB blastocysts produced a low number of chimeras.

Culture Medium: Knockout DMEM (85%), Es qualified FBS (12%), NEAA (MEM) (1%), L-Gutomin (1%), Penicillin/Streptomycin (1%), 2ME (0.01%)

Preservation Medium: ES qualified DMSO

Subculture Routine: Establishing and maintaining your culture:

To insure the highest level of viability, be sure to warm media to 37ºC before using it on the cells.

1. Plate mitotically arrested MEF (CF-1) as a feeder layer at least one day before plating the cells (see product sheet for mitotically arrested MEF for protocol). One hour before thawing the vial of cells, perform a 100% medium change using 4 ml of complete ES-DMEM.
2. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 90 seconds).
3. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.
4. Transfer the vials contents plus 5 ml of complete ES-DMEM to a 15 ml centrifuge tube. Use an additional 1 ml of media to rinse the vial and transfer the liquid to the 15 ml tube. Add 4 ml of complete ES-DMEM to bring the total volume to 10 ml.
5. Spin the cells at 270 x g for 5 min. Aspirate the supernatant and resuspend the pellet in 5 ml of complete ES-DMEM.
6. Add the 5 ml of cell suspension to the T75 flask containing feeder cells and 10 ml complete ES-DMEM.
7. Incubate the culture at 37°C in a humidified 5% CO2/95% air incubator. Perform a 100% medium change every day, passage cells every 1 to 2 days. Subcultivation Ratio: A subcultivation ratio of 1:4 to 1:7 is recommended. Medium Renewal: Every day air. Atmosphere: air, 95%; carbon dioxide (CO2), 5% Temperature: 37.0°C

   Sterility: Tests for mycoplasma, bacteria and fungi were negative.

   ATCC Number: SCRC-1002

   ECACC Number: -

   Reference: Brook FA, et al. The derivation of highly germline-competent embryonic stem cells containing NOD-derived genome. Diabetes. 52:205-208, 2003.

   Brook FA, Gardner RL. The origin and efficient derivation of embryonic stem cells in the mouse. Proc. Natl. Acad. Sci. USA. 94: 5709-5712, 1997. **Viability:** 98%

   Comments: The cell lines and hybridomas in NCBI are obtained from local and world-wide sources. The quoted information are partly provided by the depositors or the cell banks where the cells were obtained from; therefore, these sources are responsible for validity of the information. Passage numbers are given when applicable and should only be considered as a guide. Hence, NCBI does not guarantee that the passage numbers of the cells the customers will receive are exactly the ones provided in the information.

NCBI Code: ES3

Designation: MUK F-1

Species: mouse blastocyst

Tissue: Inner Cells Mass (ICM) embryonic stem cell

Morphology: Embryo Body(EB) spheroid but it makes clumps

Description: cell line has been isolated from C57BL/6 mouse blastocyst which is the most standard strain in mouse genetics.

Culture Medium: This cell line grown on mitotically inactivated mouse embryonic fibroblast (MEF) feeder + Knock out DMEM medium+20% FBS + 100uM mercaptoethanol + 0.1mμnonessential amino acids + 10 ng/mL leukemia inhibitory factor+ 1mμ Sodium pyruvate

Preservation Medium: embryonic culture + 10% DMSO

Subculture Routine: Split confluent cultures 1:3, ie seeding at 5 cells/cm^4 using 0.1% trypsin /EDTA,5%CO2,37 □

Characterize: ICC , PCR and AL-P for pluripotent characterize were positive.

Sterility: Tests for mycoplasma, bacteria and fungi were negative.

ATCC Number: -

ECACC Number: -

Reference: -

Viability: 95%

Comments: The cell lines and hybridomas in NCBI are obtained from local and world-wide sources. The quoted information are partly provided by the depositors or the cell banks where the cells were obtained from; therefore, these sources are responsible for validity of the information. Passage numbers are given when applicable and should only be considered as a guide. Hence, NCBI does not guarantee that the passage numbers of the cells the customers will receive are exactly the ones provided in the information.

NCBI Code: ES4

Designation: MUK F-2

Species: mouse blastocyst

Tissue: Inner Cells Mass (ICM) embryonic stem cell

Morphology: Embryo Body(EB) spheroid but it makes clumps

Description: cell line has been isolated from C57BL/6 mouse blastocyst which is the most standard strain in mouse genetics

Culture Medium: This cell line grown on mitotically inactivated mouse embryonic fibroblast (MEF) feeder + Knock out DMEM medium+20% FBS + 100uM mercaptoethanol + 0.1mμnonessential amino acids + 10 ng/mL leukemia inhibitory factor+ 1mμ Sodium pyruvate.

Preservation Medium: embryonic culture + 10% DMSO

Subculture Routine: Split confluent cultures 1:3, ie seeding at 5 cells/cm^4 using 0.1% trypsin /EDTA,5%CO2,37 □

Characterize: ICC , PCR and AL-P for pluripotent characterize were positive.

Sterility: Tests for mycoplasma, bacteria and fungi were negative.

ATCC Number: -

ECACC Number: -

Reference: -

Viability: 95%

Comments: The cell lines and hybridomas in NCBI are obtained from local and world-wide sources. The quoted information are partly provided by the depositors or the cell banks where the cells were obtained from; therefore, these sources are responsible for validity of the information. Passage numbers are given when applicable and should only be considered as a guide. Hence, NCBI does not guarantee that the passage numbers of the cells the customers will receive are exactly the ones provided in the information.

NCBI Code: ES5

Designation: MUK F GFP^{+}

Species: Mouse

Tissue:

Morphology:

Description: Normal

Culture Medium: DMEM HighGlucose + 20% FBS + NEAA + Sodium Pyruvate + 2-mercaptoethanol + LIF

Preservation Medium:

Subculture Routine:

Sterility: Tests for mycoplasma, bacteria and fungi were negative.

ATCC Number:

ECACC Number:

Reference:

Viability:

Comments: The cell lines and hybridomas in NCBI are obtained from local and world-wide sources. The quoted information are partly provided by the depositors or the cell banks where the cells were obtained from; therefore, these sources are responsible for validity of the information. Passage numbers are given when applicable and should only be considered as a guide. Hence, NCBI does not guarantee that the passage numbers of the cells the customers will receive are exactly the ones provided in the information.

NCBI Code: ES6

Designation: NT2(NTERA2 clD1)

Species: Human

Tissue: embryonal carcinoma (testis malignant)

Morphology: fibroblast - Like

Description: derived from human teratocarcinoma, exhibits similar properties as embryonic stem (ES) cells

Culture Medium: DMEM medium(4500 mol/l glucose) +10% FBS + 100uM mercaptoethanol + 0.1mμnonessential amino acids + 1mμ Sodium pyruvate+100 units/ml penicillin + 100μg/ml streptomycin

Preservation Medium: DMEM + 20% FBS + 10% DMSO

Subculture Routine: Split confluent cultures 1:3 to 1:10, ie seeding at 4 cells/each well of 6- wells^4using 0.25% trypsin /EDTA,5%CO2,37

Characterize: ICC and PCR were positive.

Sterility: Tests for mycoplasma, bacteria and fungi were negative.

ATCC Number: -

ECACC Number: -

Reference: Abbas JafariKermani, FardinFathi, and SeyedJavadMowla. Characterization and Genetic Manipulation of Human Umbilical Cord Vein Mesenchymal Stem Cells: Potential Application in Cell-based Gene Therapy. REJUVENATION RESEARCH. Volume 11, 10.1089 .2008.0674 .

Viability:

Comments: The cell lines and hybridomas in NCBI are obtained from local and world-wide sources. The quoted information are partly provided by the depositors or the cell banks where the cells were obtained from; therefore, these sources are responsible for validity of the information. Passage numbers are given when applicable and should only be considered as a guide. Hence, NCBI does not guarantee that the passage numbers of the cells the customers will receive are exactly the ones provided in the information.

NCBI Code: ES7

Designation: P19cl6

Species: Mouse

Tissue: embryonal carcinoma (EC)

Morphology: Epithelial-Like

Description: Embryonic Body (EB)isolated from murine P19 embryonic carcinoma cells by limiting dilution method

Culture Medium: DMEM High Glucose+FBS10% + %1penicillin-streptomycin

Preservation Medium: DMEM + 20% FBS + 10% DMSO

Subculture Routine: Split confluent cultures 1:3 to 1:10, ie seeding at 3.7 cells/cm^5 using 0.25% trypsin /EDTA,5%CO2,37 □

Characterize: ICC and PCR for pluripotent characterize were positive.

Sterility: Tests for mycoplasma, bacteria and fungi were negative.

ATCC Number: -

ECACC Number: -

Reference: FardinFathi , Satoshi Murasawa , Satoshi Hasegawa , Takayuki Asahara ,Abbas JafariKermani , SeyedJavadMowla Cardiac differentiation of P19CL6 cells by oxytocin. International Journal of Cardiology 134 (2009) 75–81.

Viability:

Comments: The cell lines and hybridomas in NCBI are obtained from local and world-wide sources. The quoted information are partly provided by the depositors or the cell banks where the cells were obtained from; therefore, these sources are responsible for validity of the information. Passage numbers are given when applicable and should only be considered as a guide. Hence, NCBI does not guarantee that the passage numbers of the cells the customers will receive are exactly the ones provided in the information.

NCBI Code: ES8

Designation: P19cl6(GFP+)

Species: Mouse

Tissue: embryonic carcinoma (EC) (GFP+)

Morphology: Epithelial-Like

Description: Embryonic Body (EB)isolated from murine P19 embryonic carcinoma cells by limiting dilution method

Culture Medium: DMEM (high .Glu)+ 10% FBS +100 Units/mlpenicillin+ 100 µg/ml streptomycin

Preservation Medium: DMEM + 20% FBS + 10% DMSO

Subculture Routine: Split confluent cultures 1:3 to 1:10, ie seeding at 8 cells/cm^4using 0.25% trypsin /EDTA,5%CO2,37 □.

Characterize: ICC and PCR for pluripotent characterize were positive.

Sterility: Tests for mycoplasma, bacteria and fungi were negative.

ATCC Number: -

ECACC Number: -

Reference: FardinFathi , Satoshi Murasawa , Satoshi Hasegawa , Takayuki Asahara ,Abbas JafariKermani , SeyedJavadMowla Cardiac differentiation of P19CL6 cells by oxytocin. International Journal of Cardiology 134 (2009) 75–81

Viability:

Comments: The cell lines and hybridomas in NCBI are obtained from local and world-wide sources. The quoted information are partly provided by the depositors or the cell banks where the cells were obtained from; therefore, these sources are responsible for validity of the information. Passage numbers are given when applicable and should only be considered as a guide. Hence, NCBI does not guarantee that the passage numbers of the cells the customers will receive are exactly the ones provided in the information.

NCBI Code: ES9

Designation: C57BL6

Species: Mouse

Tissue: -

Morphology: -

Description: Normal

Culture Medium: DMEM High Glucose+FBS10%

Preservation Medium: -

Subculture Routine: -

Sterility: Tests for mycoplasma, bacteria and fungi were negative.

ATCC Number: -

ECACC Number: -

Reference: -

Viability: 95%

Comments: The cell lines and hybridomas in NCBI are obtained from local and world-wide sources. The quoted information are partly provided by the depositors or the cell banks where the cells were obtained from; therefore, these sources are responsible for validity of the information. Passage numbers are given when applicable and should only be considered as a guide. Hence, NCBI does not guarantee that the passage numbers of the cells the customers will receive are exactly the ones provided in the information.