

## Sector of Cell Collections of ICG SB RAS: Human Cell Lines

Sector of cells collections has human cell lines: fibroblasts, glioma cells and induced pluripotent stem cells.

Services:

- distribution of cell cultures;
- training.

Research areas:

- derivation of cell lines for fundamental and applied research in the fields of developmental biology, cell biology and transgenesis, including human induced pluripotent stem cells;
- systematic description of the generated cell lines;
- quality control of collection material using modern methods.

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# Tumor cell lines

## Cell line passport of NG-16

**Catalogue number:** HSPS00092

**Name:** NG-16

**Description:** glioma cells from tumor biopsy

**Authors:** Shnaider T.A., Pristyazhnyuk I.E., Yakovleva S.A., Stupak E.V.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46,XX, chromosome number variability 42-48, polyploid cells 3.2%, modal chromosome number 46

**Pluripotency:**

**Additional characteristics:**

**Species control:** cytogenetic

**Cryoconservation passage:** 3

**Area of application:** pharmaceutical substance testing

### Source

**Species:** *Homo sapiens*

**Tissue:** glioblastoma, grade IV

**Date:** 30.11.2023

### Cell culture

**Morphology:** fibroblast-like cells

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, FBS 10%, NEAA 1%, Glutamine 1%, PenStrep 1%

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** cell passage with 0.25% Trypsin-EDTA at the ratio 1:3

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 70%

**Additional information:**

### References:

# Cell line passport of NG-19

**Catalogue number:** HSPS00093

**Name:** NG-19

**Description:** glioma cells from tumor biopsy

**Authors:** Shnaider T.A., Pristyazhnyuk I.E., Yakovleva S.A., Stupak E.V.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46,XY, chromosome number variability 44-47, polyploid cells 5.7%, modal chromosome number 46

**Pluripotency:**

**Additional characteristics:** chromosomal instability, presense of chromosome 1 derivatives (chromosome 1 and 19 codeletion) chromosome 2 derivatives

**Species control:** cytogenetic

**Cryoconservation passage:** 3

**Area of application:** pharmaceutical substance testing

## Source

**Species:** *Homo sapiens*

**Tissue:** glioblastoma of the left frontal lobe, grade IV

**Date:** 30.11.2023

## Cell culture

**Morphology:** fibroblast-like cells

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, FBS 10%, NEAA 1%, Glutamine 1%, PenStrep 1%

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** cell passage with 0.25% Trypsin-EDTA at the ratio 1:3

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 70%

**Additional information:**

**References:**

# Cell line passport of NG-20

**Catalogue number:** HSPS00094

**Name:** NG-20

**Description:** glioma cells from tumor biopsy

**Authors:** Shnaider T.A., Pristyazhnyuk I.E., Yakovleva S.A., Stupak E.V.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46,XY, chromosome number variability 42-48, polyploid cells 4.7%, modal chromosome number 46

**Pluripotency:**

**Additional characteristics:**

**Species control:** cytogenetic

**Cryoconservation passage:** 3

**Area of application:** pharmaceutical substance testing

## Source

**Species:** *Homo sapiens*

**Tissue:** astrocytoma in the area of the right temporal and parietal lobes, grade 3

**Date:** 30.11.2023

## Cell culture

**Morphology:** fibroblast-like cells

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, FBS 10%, NEAA 1%, Glutamine 1%, PenStrep 1%

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** cell passage with 0.25% Trypsin-EDTA at the ratio 1:3

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 70%

**Additional information:**

## References:

## Cell line passport of NG-23

**Catalogue number:** HSPS00095

**Name:** NG-23

**Description:** glioma cells from tumor biopsy

**Authors:** Shnaider T.A., Pristyazhnyuk I.E., Yakovleva S.A., Stupak E.V.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=45,X0; 46,XY, chromosome number variability 40-47, polyploid cells 2%, modal chromosome number 45

**Pluripotency:**

**Additional characteristics:** chromosome Y loss

**Species control:** cytogenetic

**Cryoconservation passage:** 3

**Area of application:** pharmaceutical substance testing

### Source

**Species:** *Homo sapiens*

**Tissue:** glioblastoma

**Date:** 30.11.2023

### Cell culture

**Morphology:** fibroblast-like cells

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, FBS 10%, NEAA 1%, Glutamine 1%, PenStrep 1%

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** cell passage with 0.25% Trypsin-EDTA at the ratio 1:3

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 70%

**Additional information:**

**References:**

## Cell line passport of NG-25

**Catalogue number:** HSPS00096

**Name:** NG-25

**Description:** glioma cells from tumor biopsy

**Authors:** Shnaider T.A., Pristyazhnyuk I.E., Yakovleva S.A., Stupak E.V.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46,XY, chromosome number variability 42-89, polyploid cells 9%, modal chromosome number 46

**Pluripotency:**

**Additional characteristics:** multiple chromosomal rearrangements

**Species control:** cytogenetic

**Cryoconservation passage:** 3

**Area of application:** pharmaceutical substance testing

### Source

**Species:** *Homo sapiens*

**Tissue:** glioblastoma of the left frontal lobe, grade IV (NG-19 relapse)

**Date:** 30.11.2023

### Cell culture

**Morphology:** neurosphere

**Cell culture method:** neurosphere

**Cell culture medium:** DMEM/F12, FBS 10%, NEAA 1%, Glutamine 1%, PenStrep 1%

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** cell passage with 0.25% Trypsin-EDTA at the ratio 1:3

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 70%

**Additional information:**

**References:**

# Cell line passport of CAR-YT

**Catalogue number:** HSCC00068

**Name:** CAR-YT

**Description:** NK-cell lymphoma, produced from NK-cell lymphoma YT by lentiviral transduction of a genetic construct coding chimeric antigen receptor with specificity to human PSMA protein

**Authors:** Gorchakov A.A., Kulemzin S.V., Belovezhets T.N., Chikaev A.N., Koval O.A.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 4n=92, XXYY, chromosome number variability 84-98, polyploid cells 12%, modal chromosome number 92

4n=92, XXYY, range of chromosomes number 84-98, poliploids 12%, modal chromosome number 92

**Pluripotency:**

**Additional characteristics:** cloning efficiency 20%; DNA region integrated into the genome, from 5'LTR to 3'LTR: strong constitutive promoter of the human *EF1a* gene, sequence encoding the signal peptide of the light chain of immunoglobulin kappa, fused with a sequence encoding a chimeric antigen receptor with specificity for the human PSMA protein. Further, the IRES element of cardiovirus A with a sequence encoding the gene for resistance to the antibiotic zeocin.

**Species control:** cytogenetic

**Cryoconservation passage:** 8

**Area of application:** immunology, oncology

## Source

**Species:** *Homo sapiens*

**Tissue:** NK-cells

**Date:** 05.06.2018

## Cell culture

**Morphology:** suspension cells, upon activation can form 3-8 cell colonies; cell morphology is from spheroid to moderately asymmetric

**Cell culture method:** cell suspension

**Cell culture medium:** IMDM (glucose 4.5 g/l, L-glutamine 4mM, HEPES 25 mM, Na-Pyruvate 1mM), FBS 10%, PenStrep 1%

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** cell culture resuspending every two days at the ratio 1:2

**Cryoconservation:** 90% FBS, 10% DMSO

**Cryoconservation cell concentration:** 2 mln cells / ml

**Cell viability after cryoconservation:** 50%

**Additional information:** cell line is given to the collection for the depositing

**References:** <https://doi.org/10.23868/201811039>

# Cell line passport of CAR-YT-Lact

**Catalogue number:** HSCC00069

**Name:** CAR-YT-Lact

**Description:** NK-cell lymphoma, obtained from the NK-cell lymphoma YT by lentiviral integration of cassettes encoding a chimeric antigen receptor with specificity to the human protein PSMA and the RL2 peptide (lactaptin)

**Authors:** Gorchakov A.A., Kulemzin S.V., Belovezhets T.N., Chikaev A.N., Koval O.A.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 4n=92, XXYY, chromosome number variability 84-98, polyploid cells 12%, modal chromosome number 92

**Pluripotency:**

**Additional characteristics:** Cloning efficiency of 20%; two DNA regions integrated into the genome, from 5'LTR to 3'LTR: a) a strong constitutive promoter of the human *EF1a* gene, a sequence encoding the signal peptide of the kappa immunoglobulin light chain, fused to a sequence encoding a chimeric antigen receptor with specificity for the human PSMA protein. Then there is an IRES element of cardiovirus A with a sequence encoding the gene for resistance to the antibiotic zeocin. b) a strong constitutive promoter of the human *EF1a* gene, a sequence encoding the signal peptide of the copepod *Gaussia princeps* luciferase (GlucSP), fused to a sequence encoding the RL2 peptide (lactaptin), marked with a hexahistidine epitope. Next is the IRES element of cardiovirus A with a sequence encoding a transduction or transfection marker, the copGFP fluorescent protein of the copepod *Pontellina plumata*.

**Species control:** cytogenetic

**Cryoconservation passage:** 8

**Area of application:** immunology, oncology

## Source

**Species:** *Homo sapiens*

**Tissue:** NK-cells

**Date:** 05.06.2018

## Cell culture

**Morphology:** suspension cells, upon activation can form 3-8 cell colonies; cell morphology is from spheroid to moderately asymmetric

**Cell culture method:** cell suspension

**Cell culture medium:** IMDM (glucose 4.5 g/l, L-glutamine 4 mM, HEPES 25 mM, Na-Pyruvate 1 mM), FBS 10%, PenStrep 1%

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** cell culture resuspending every two days at the ratio 1:2

**Cryoconservation:** 90% FBS, 10% DMSO

**Cryoconservation cell concentration:** 2 mln cells / ml

**Cell viability after cryoconservation:** 50%

**Additional information:** cell line is given to the collection for the depositing

**References:** <https://doi.org/10.23868/201811039>

# Cell line passport of CYTO-CAR-YT-Lact

**Catalogue number:** HSCC00070

**Name:** CYTO-CAR-YT-Lact

**Description:** modified NK-cell lymphoma, obtained from the NK-cell lymphoma YT by lentiviral integration of cassettes encoding a chimeric antigen receptor with specificity to the human protein PSMA and the RL2 peptide (lactaptin). In addition, genetic editing was carried out, affecting chromosome 12 and leading to an increase in cell cytotoxicity.

**Authors:** Gorchakov A.A., Kulemzin S.V., Belovezhets T.N., Chikaev A.N., Koval O.A.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 4n=92, XXYY, chromosome number variability 84-98, polyploid cells 12%, modal chromosome number 92

**Pluripotency:**

**Additional characteristics:** 20% cloning efficiency; CAR-YT-Lact cells were transduced with the GeCKO knockout library and cells exhibiting enhanced cytotoxicity towards PC3-PSMA targets were selected. The cells were then subcloned and individual clones were further analyzed. The genetic editing affects chromosome 12 and results in a biallelic deletion.

**Species control:** cytogenetic

**Cryoconservation passage:** 13

**Area of application:** immunology, oncology

## Source

**Species:** *Homo sapiens*

**Tissue:** NK-cells

**Date:** 05.06.2019

## Cell culture

**Morphology:** suspension cells, upon activation can form 3-8 cell colonies; cell morphology is from spheroid to moderately asymmetric

**Cell culture method:** cell suspension

**Cell culture medium:** IMDM (glucose 4.5 g/l, L-glutamine 4 mM, HEPES 25 mM, Na-Pyruvate 1 mM), FBS 10%, PenStrep 1%

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** cell culture resuspending every two days at the ratio 1:2

**Cryoconservation:** 90% FBS, 10% DMSO

**Cryoconservation cell concentration:** 2 mln cells / ml

**Cell viability after cryoconservation:** 50%

**Additional information:** cell line is given to the collection for the depositing

## References:

# Cell line passport of EBV-positive B lymphoblastoid cell line

**Catalogue number:** HSCC00081

**Name:** EBV-positive B lymphoblastoid cell line

**Description:** Epstein-Barr virus-induced human B-lymphoma. Derived from bone marrow aspirate of a patient diagnosed with multiple myeloma. The cell culture is a descendant of an Epstein-Barr virus-infected B-clone that displaced clonotypic MM cells over several in vitro culture passages.

**Authors:** Dolgova E.V., Pronkina N.V., Chernykh E.R, Bogachev S.S.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 4n=92, XXYY

**Pluripotency:**

**Additional characteristics:** karyotype: nuc ish

(IGHx2)[200]/(CKS1B,CDKN2C)x2[200]/(DLEU,LAMP)x2[200]/(D17Z1,TP53)x2[200]. *IGH/14q32* locus rearrangement, deletion/amplification of the *CKS1B/1q21*, *CDKN2C/1p32* loci, *DLEU/13q14.2* deletion, *LAMP/13q34*, *TP53/17p13* not found in the plasma cells.

**Species control:** cytogenetic

**Cryoconservation passage:** 9

**Area of application:** cell biology, oncology

## Source

**Species:** *Homo sapiens*

**Tissue:** bone marrow

**Date:** 29.09.2014

## Cell culture

**Morphology:** cell suspension, within 2-6 hours of cultivation cells form spherical aggregates up to 80 µm in size. Single cells are also present in the suspension. The shape of individual cells varies from spherical to moderately irregular.

**Cell culture method:** cell suspension

**Cell culture medium:** α-MEM, 10% FBS, gentamycin 40 µg/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** cell culture resuspending every two days at the ratio 1:2

**Cryoconservation:** 50% FBS, 40% α-MEM, 10% DMSO

**Cryoconservation cell concentration:** 1 mln cells / ml

**Cell viability after cryoconservation:** 70%

**Additional information:** cell line is given to the collection for the depositing

**References:** <https://doi.org/10.1016/j.clml.2016.06.014>; <https://doi.org/10.1186/s12935-019-0842-x>

# Human fibroblasts

## Cell line passport of NAF1nor

**Catalogue number:** HSAF00064

**Name:** NAF1nor

**Description:** human skin fibroblasts, donor age 32 years, XY

**Authors:** Gridina M.M.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XY

**Pluripotency:**

**Additional characteristics:**

**Species control:** cytogenetic

**Cryoconservation passage:** 1

**Area of application:** developmental biology

### Source

**Species:** *Homo sapiens*

**Tissue:** skin

**Date:** 01.01.2017

### Cell culture

**Morphology:** fibroblast morphology

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, FBS 10%, NEAA 1%, Glutamine 1%, PenStrep 1%

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** passage with trypsin-EDTA 0.25%, split 1:3 - 1:4

**Cryoconservation:** 90% FBS, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 70%

**Additional information:**

### References:

# Human induced pluripotent stem cells

## Cell line passport of iTAF2nor3

**Catalogue number:** HSPS00035

**Name:** iTAF2nor3

**Description:** human iPSCs derived from skin fibroblasts

**Authors:** Menzorov A.G.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XY, chromosome number variability 45-47, tetraploid cells <1%, modal chromosome number 46

**Pluripotency:** pluripotency is shown by teratoma formation in SCID mice

**Additional characteristics:**

**Species control:** cytogenetic

**Cryoconservation passage:** 16

**Area of application:** transgenesis, developmental biology

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 01.01.2017

### Cell culture

**Morphology:** human pluripotent stem cell colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, KSR 15%, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage, split 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 0,05

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells.

### References:

## Cell line passport of iTAF2nor4

**Catalogue number:** HSPS00036

**Name:** iTAF2nor4

**Description:** human iPSCs derived from skin fibroblasts

**Authors:** Menzorov A.G.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XY, chromosome number variability 45-47, tetraploid cells <1%, modal chromosome number 46

**Pluripotency:** pluripotency is shown by teratoma formation in SCID mice

**Additional characteristics:**

**Species control:** cytogenetic

**Cryoconservation passage:** 16

**Area of application:** transgenesis, developmental biology

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 01.01.2017

### Cell culture

**Morphology:** human pluripotent stem cell colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, KSR 15%, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage, split 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 0,05

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells.

### References:

## Cell line passport of iCS-MCM1-2

**Catalogue number:** HSPS00072

**Name:** iCS-MCM1-2

**Description:** Human iPSCs derived from mononuclear blood cells of a patient with Cohen syndrome

**Authors:** Shnaider T.A., Khabarova A.A., Grigor'eva E.V.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XX, chromosome number variability 46-48, tetraploid cells 1%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** COH1-/-; chr8:g.100108653dup - reading frame shift; chr8:g.100494031G>T - nucleotide substitution in the untranslated sequence of the splice donor, which with a very high probability leads to its loss and disruption of the normal process of splicing and transcription of the gene (GRCh37/hg19)

**Species control:** cytogenetic

**Cryoconservation passage:** 15

**Area of application:** developmental biology, neurogenesis, Cohen syndrome

### Source

**Species:** *Homo sapiens*

**Tissue:** mononuclear blood cells

**Date:** 23.11.2021

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

**References:** <https://doi.org/10.3390/cells12232702>

## Cell line passport of iCS-MCM1-4

**Catalogue number:** HSPS00073

**Name:** iCS-MCM1-4

**Authors:** Shnaider T.A., Khabarova A.A., Grigor'eva E.V.

**Description:** Human iPSCs derived from mononuclear blood cells of a patient with Cohen syndrome

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XX, chromosome number variability 46-47, tetraploid cells 1%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** COH1-/-; chr8:g.100108653dup - reading frame shift; chr8:g.100494031G>T - nucleotide substitution in the untranslated sequence of the splice donor, which with a very high probability leads to its loss and disruption of the normal process of splicing and transcription of the gene (GRCh37/hg19)

**Species control:** cytogenetic

**Cryoconservation passage:** 15

**Area of application:** developmental biology, neurogenesis, Cohen syndrome

### Source

**Species:** *Homo sapiens*

**Tissue:** mononuclear blood cells

**Date:** 23.11.2021

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References:

## Cell line passport of iCS-MCM1-13

**Catalogue number:** HSPS00074

**Name:** iCS-MCM1-13

**Description:** Human iPSCs derived from mononuclear blood cells of a patient with Cohen syndrome

**Authors:** Shnaider T.A., Khabarova A.A., Grigor'eva E.V.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XX, chromosome number variability 46-47, tetraploid cells 1,5%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** COH1-/-; chr8:g.100108653dup - reading frame shift; chr8:g.100494031G>T - nucleotide substitution in the untranslated sequence of the splice donor, which with a very high probability leads to its loss and disruption of the normal process of splicing and transcription of the gene (GRCh37/hg19)

**Species control:** cytogenetic

**Cryoconservation passage:** 15

**Area of application:** developmental biology, neurogenesis, Cohen syndrome

### Source

**Species:** *Homo sapiens*

**Tissue:** mononuclear blood cells

**Date:** 23.11.2021

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

**References:** <https://doi.org/10.3390/cells12232702>

## Cell line passport of iCS-MCF2-5

**Catalogue number:** HSPS00075

**Name:** iCS-MCF2-5

**Description:** Human iPSCs derived from fibroblasts of a patient with Cohen syndrome

**Authors:** Khabarova A.A., Pristyazhnyuk I.E., Vladimirova E.V.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XX, chromosome number variability 46-47, tetraploid cells 0,5%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** COH1-/-; chr8:g.100514033T>C; chr8:g.100844663\_100844664del (GRCh37/hg19)

**Species control:** cytogenetic

**Cryoconservation passage:** 15

**Area of application:** developmental biology, neurogenesis, Cohen syndrome

### Source

**Species:** *Homo sapiens*

**Tissue:** mononuclear blood cells

**Date:** 23.11.2021

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

**References:** <https://doi.org/10.3390/cells12232702>

## Cell line passport of iCS-MCF2-6

**Catalogue number:** HSPS00076

**Name:** iCS-MCF2-6

**Description:** Human iPSCs derived from fibroblasts of a patient with Cohen syndrome

**Authors:** Khabarova A.A., Pristyazhnyuk I.E., Vladimirova E.V.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XX, chromosome number variability 46-48, tetraploid cells 1%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** COH1-/-; chr8:g.100514033T>C; chr8:g.100844663\_100844664del (GRCh37/hg19)

**Species control:** cytogenetic

**Cryoconservation passage:** 15

**Area of application:** developmental biology, neurogenesis, Cohen syndrome

### Source

**Species:** *Homo sapiens*

**Tissue:** mononuclear blood cells

**Date:** 23.11.2021

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References:

## Cell line passport of iCS-MCF2-24

**Catalogue number:** HSPS00077

**Name:** iCS-MCF2-24

**Description:** Human iPSCs derived from fibroblasts of a patient with Cohen syndrome

**Authors:** Khabarova A.A., Pristyazhnyuk I.E., Vladimirova E.V.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XX, chromosome number variability 46-47, tetraploid cells 1%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** COH1-/-; chr8:g.100514033T>C; chr8:g.100844663\_100844664del (GRCh37/hg19)

**Species control:** cytogenetic

**Cryoconservation passage:** 15

**Area of application:** developmental biology, neurogenesis, Cohen syndrome

### Source

**Species:** *Homo sapiens*

**Tissue:** mononuclear blood cells

**Date:** 23.11.2021

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

**References:** <https://doi.org/10.3390/cells12232702>

# Cell line passport of iCS-MCF3-1

**Catalogue number:** HSPS00098

**Name:** iCS-MCF3-1

**Description:** Human iPSCs derived from fibroblasts of a patient with Cohen syndrome

**Authors:** Pristyazhnyuk I.E., Voinova V.Y., Safonova M.P., Lagarkova M.A., Volovikov E.A., Menzorov A.G.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX, chromosome number variability 46-47, tetraploid cells 6%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** compound heterozygous *VPS13B* gene variants (8:g.99766811A>G and 8:g.99859429G>A, HG38)

**Species control:** cytogenetic

**Cryoconservation passage:** 5

**Area of application:** modeling of Cohen syndrome, study of lipid transport disorders

## Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 20.06.2024

## Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

## References:

## Cell line passport of iCS-MCF3-3

**Catalogue number:** HSPS00099

**Name:** iCS-MCF3-3

**Description:** Human iPSCs derived from fibroblasts of a patient with Cohen syndrome

**Authors:** Pristyazhnyuk I.E., Voinova V.Y., Safonova M.P., Lagarkova M.A., Volovikov E.A., Menzorov A.G.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX, chromosome number variability 46-47, tetraploid cells 2%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** compound heterozygous *VPS13B* gene variants (8:g.99766811A>G and 8:g.99859429G>A, HG38)

**Species control:** cytogenetic

**Cryoconservation passage:** 5

**Area of application:** modeling of Cohen syndrome, study of lipid transport disorders

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 20.06.2024

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References:

## Cell line passport of iCS-MCF3-5

**Catalogue number:** HSPS00100

**Name:** iCS-MCF3-5

**Description:** Human iPSCs derived from fibroblasts of a patient with Cohen syndrome

**Authors:** Pristyazhnyuk I.E., Voinova V.Y., Safonova M.P., Lagarkova M.A., Volovikov E.A., Menzorov A.G.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX, chromosome number variability 46-48, tetraploid cells 0%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** compound heterozygous VPS13B gene variants (8:g.99766811A>G and 8:g.99859429G>A, HG38)

**Species control:** cytogenetic

**Cryoconservation passage:** 5

**Area of application:** modeling of Cohen syndrome, study of lipid transport disorders

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 20.06.2024

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References:

# Cell line passport of iTAF15Xsk1

**Catalogue number:** HSPS00078

**Name:** iTAF15Xsk1

**Description:** Human iPSCs derived from fibroblasts from a patient with Xq24 microdeletion

**Authors:** Menzorov A.G., Nikitina T.V., Tolmacheva E.N., Minaycheva L.I., Nazarenko L.P., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XX, chromosome number variability 46-48, tetraploid cells 3%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** Xq24

**Species control:** cytogenetic

**Cryoconservation passage:** 10

**Area of application:** Xq24 microdeletion, UBE2A deficiency syndrome, recurrent miscarriage, asymmetric X-chromosome inactivation

## Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 26.08.2022

## Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

## References:

## Cell line passport of iTAF15Xsk4

**Catalogue number:** HSPS00079

**Name:** iTAF15Xsk4

**Description:** Human iPSCs derived from fibroblasts from a patient with Xq24 microdeletion

**Authors:** Menzorov A.G., Nikitina T.V., Tolmacheva E.N., Minaycheva L.I., Nazarenko L.P., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XX, chromosome number variability 46-47, tetraploid cells 5%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** Xq24

**Species control:** cytogenetic

**Cryoconservation passage:** 12

**Area of application:** Xq24 microdeletion, UBE2A deficiency syndrome, recurrent miscarriage, asymmetric X-chromosome inactivation

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 26.08.2022

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

**References:** <https://doi.org/10.1134/S1062360423060073>

# Cell line passport of iTAF15Xsk6

**Catalogue number:** HSPS00080

**Name:** iTAF15Xsk6

**Authors:** Menzorov A.G., Nikitina T.V., Tolmacheva E.N., Minaycheva L.I., Nazarenko L.P., Lebedev I.N.

**Description:** Human iPSCs derived from fibroblasts from a patient with Xq24 microdeletion

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n=46, XX, chromosome number variability 46-48, tetraploid cells 1%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** Xq24

**Species control:** cytogenetic

**Cryoconservation passage:** 12

**Area of application:** Xq24 microdeletion, UBE2A deficiency syndrome, recurrent miscarriage, asymmetric X-chromosome inactivation

## Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 26.08.2022

## Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

## References:

## Cell line passport of iTAF15Xsk12

**Catalogue number:** HSPS00082

**Name:** iTAF15Xsk12

**Description:** Human iPSCs derived from fibroblasts from a patient with Xq24 microdeletion

**Authors:** Menzorov A.G., Meshcheryakov N.I., Nikitina T.V., Kashevarova A.A., Tolmacheva E.N., Minaycheva L.I., Nazarenko L.P., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX, chromosome number variability 46-48, tetraploid cells 10%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** Xq24

**Species control:** cytogenetic

**Cryoconservation passage:** 7

**Area of application:** Xq24 microdeletion, UBE2A deficiency syndrome, recurrent miscarriage, asymmetric X-chromosome inactivation

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 30.11.2023

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References:

# Cell line passport of iTAF15Xsk13

**Catalogue number:** HSPS00083

**Name:** iTAF15Xsk13

**Description:** Human iPSCs derived from fibroblasts from a patient with Xq24 microdeletion

**Authors:** Menzorov A.G., Meshcheryakov N.I., Nikitina T.V., Kashevarova A.A., Tolmacheva E.N., Minaycheva L.I., Nazarenko L.P., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX, chromosome number variability 46-48, tetraploid cells 4%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** Xq24

**Species control:** cytogenetic

**Cryoconservation passage:** 7

**Area of application:** Xq24 microdeletion, UBE2A deficiency syndrome, recurrent miscarriage, asymmetric X-chromosome inactivation

## Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 30.11.2023

## Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

## References:

## Cell line passport of iTAF15Xsk31

**Catalogue number:** HSPS00084

**Name:** iTAF15Xsk31

**Description:** Human iPSCs derived from fibroblasts from a patient with Xq24 microdeletion

**Authors:** Menzorov A.G., Meshcheryakov N.I., Nikitina T.V., Kashevarova A.A., Tolmacheva E.N., Minaycheva L.I., Nazarenko L.P., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX, chromosome number variability 44-49, tetraploid cells 4%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** Xq24

**Species control:** cytogenetic

**Cryoconservation passage:** 12

**Area of application:** Xq24 microdeletion, UBE2A deficiency syndrome, recurrent miscarriage, asymmetric X-chromosome inactivation

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 30.11.2023

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References:

# Cell line passport of iTAF15Xsk39

**Catalogue number:** HSPS00085

**Name:** iTAF15Xsk39

**Description:** Human iPSCs derived from fibroblasts from a patient with Xq24 microdeletion

**Authors:** Menzorov A.G., Meshcheryakov N.I., Nikitina T.V., Kashevarova A.A., Tolmacheva E.N., Minaycheva L.I., Nazarenko L.P., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX, chromosome number variability 44-90, tetraploid cells 11%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** Xq24

**Species control:** cytogenetic

**Cryoconservation passage:** 10

**Area of application:** Xq24 microdeletion, UBE2A deficiency syndrome, recurrent miscarriage, asymmetric X-chromosome inactivation

## Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 30.11.2023

## Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

## References:

# Cell line passport of iTAF5rc11

**Catalogue number:** HSPS00086

**Name:** iTAF5rc11

**Description:** Human iPSCs derived from patient fibroblasts with a ring chromosome 22

**Authors:** Menzorov A.G., Pristyazhnyuk I.E., Nikitina T.V., Kashevarova A.A., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX,r(22) chromosome number variability 46-48, tetraploid cells <1%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** r(22)

**Species control:** cytogenetic

**Cryoconservation passage:** 10

**Area of application:** study of genome instability in the presence of ring chromosomes

## Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 30.11.2023

## Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

## References:

## Cell line passport of iTAF5rc13

**Catalogue number:** HSPS00087

**Name:** iTAF5rc13

**Description:** Human iPSCs derived from patient fibroblasts with a ring chromosome 22

**Authors:** Menzorov A.G., Pristyazhnyuk I.E., Nikitina T.V., Kashevarova A.A., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX,r(22) chromosome number variability 45-46, tetraploid cells <1%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** r(22)

**Species control:** cytogenetic

**Cryoconservation passage:** 10

**Area of application:** study of genome instability in the presence of ring chromosomes

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 30.11.2023

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References:

## Cell line passport of iTAF5rc15

**Catalogue number:** HSPS00088

**Name:** iTAF5rc15

**Description:** Human iPSCs derived from patient fibroblasts with a ring chromosome 22

**Authors:** Menzorov A.G., Pristyazhnyuk I.E., Nikitina T.V., Kashevarova A.A., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX,r(22) chromosome number variability 45-46, tetraploid cells 3,3%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** r(22)

**Species control:** cytogenetic

**Cryoconservation passage:** 10

**Area of application:** study of genome instability in the presence of ring chromosomes

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 30.11.2023

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References:

# Cell line passport of iTAF5rc16

**Catalogue number:** HSPS00089

**Name:** iTAF5rc16

**Description:** Human iPSCs derived from patient fibroblasts with a ring chromosome 22

**Authors:** Menzorov A.G., Pristyazhnyuk I.E., Nikitina T.V., Kashevarova A.A., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX,r(22) chromosome number variability 45-48, tetraploid cells 3,8%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** r(22)

**Species control:** cytogenetic

**Cryoconservation passage:** 10

**Area of application:** study of genome instability in the presence of ring chromosomes

## Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 30.11.2023

## Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

## References:

## Cell line passport of iTAF5rc17

**Catalogue number:** HSPS00090

**Name:** iTAF5rc17

**Description:** Human iPSCs derived from patient fibroblasts with a ring chromosome 22

**Authors:** Menzorov A.G., Pristyazhnyuk I.E., Nikitina T.V., Kashevarova A.A., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX,r(22) chromosome number variability 45-46, tetraploid cells <1%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** r(22)

**Species control:** cytogenetic

**Cryoconservation passage:** 10

**Area of application:** study of genome instability in the presence of ring chromosomes

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 30.11.2023

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References:

## Cell line passport of iTAF5rc19

**Catalogue number:** HSPS00091

**Name:** iTAF5rc19

**Description:** Human iPSCs derived from patient fibroblasts with a ring chromosome 22

**Authors:** Menzorov A.G., Pristyazhnyuk I.E., Nikitina T.V., Kashevarova A.A., Lebedev I.N.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46,XX,r(22) chromosome number variability 45-47, tetraploid cells 6,7%, modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** r(22)

**Species control:** cytogenetic

**Cryoconservation passage:** 10

**Area of application:** study of genome instability in the presence of ring chromosomes

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 30.11.2023

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References:

## Cell line passport of iTAF1-36-H8.1

**Catalogue number:** HSPS00101

**Name:** iTAF1-36-H8.1

**Description:** human iPSCs obtained from fibroblasts of a conditionally healthy donor, introduced deletion of HARsv2\_1748 in the *CNTN6* gene (GRCh38/hg38 del3: 1,231,849-1,232,540; 690 bp)

**Authors:** Chvileva A.S., Yunusova A.M., Pristyazhnyuk I.E., Smirnov A.V., Shnaider T.A.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46, XY, chromosome number variability 46-47, tetraploid cells 8% modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** r(22)

**Species control:** cytogenetic

**Cryoconservation passage:** 12

**Area of application:** studies of HARsv2\_1748 deletion, regulatory sequences in the *CNTN6* gene, mental retardation

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 25.06.2022

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

**References:** <https://doi.org/10.1134/S1062360424700267>

## Cell line passport of iTAF1-36-H8.2

**Catalogue number:** HSPS00102

**Name:** iTAF1-36-H8.1

**Description:** human iPSCs obtained from fibroblasts of a conditionally healthy donor, introduced deletion of HARsv2\_1748 in the *CNTN6* gene (GRCh38/hg38 del3: 1,231,849-1,232,540; 690 bp)

**Authors:** Chvileva A.S., Yunusova A.M., Pristyazhnyuk I.E., Smirnov A.V., Shnaider T.A.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46, XY, chromosome number variability 46-47, tetraploid cells 8% modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:** r(22)

**Species control:** cytogenetic

**Cryoconservation passage:** 12

**Area of application:** studies of HARsv2\_1748 deletion, regulatory sequences in the *CNTN6* gene, mental retardation

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 12.12.2023

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 10 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:3 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

**References:** <https://doi.org/10.1134/S1062360424700267>

# Cell line passport of iTAF1-36-H7.1

**Catalogue number:** HSPS00111

**Name:** iTAF1-36-H7.1

**Description:** human iPSCs obtained from fibroblasts of a conditionally healthy donor, introduced compound heterozygous deletion of HARsv2\_1747 in the *CNTN6* gene (GRCh38/hg38 del3: 1,195,873-1,196,314; 442 bp/ del3: 1,195,873-1,196,318; 446 bp)

**Authors:** Knyazeva A.S., Yunusova A.M., Smirnov A.V., Shnaider T.A.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46, XY, chromosome number variability 46-47, tetraploid cells 5% modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:**

**Species control:** cytogenetic

**Cryoconservation passage:** 19

**Area of application:** studies of HARsv2\_1747 deletion, regulatory sequences in the *CNTN6* gene, mental retardation

## Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 08.12.2022

## Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 20 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:5 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

## References:

## Cell line passport of iTAF1-36-H7.2

**Catalogue number:** HSPS00112

**Name:** iTAF1-36-H7.2

**Description:** human iPSCs obtained from fibroblasts of a conditionally healthy donor, introduced homozygous deletion of HARsv2\_1747 in the *CNTN6* gene (GRCh38/hg38 del3: 1,195,873-1,196,314; 442 bp)

**Authors:** Knyazeva A.S., Yunusova A.M., Smirnov A.V., Shnaider T.A.

**Contamination analysis:** bacteria, fungi and mycoplasma not detected

**Karyotype:** 2n = 46, XY, chromosome number variability 46-47, tetraploid cells 10% modal chromosome number 46

**Pluripotency:** pluripotency demonstrated in embryoid body formation test

**Additional characteristics:**

**Species control:** cytogenetic

**Cryoconservation passage:** 6

**Area of application:** studies of HARsv2\_1747 deletion, regulatory sequences in the *CNTN6* gene, mental retardation

### Source

**Species:** *Homo sapiens*

**Tissue:** fibroblasts

**Date:** 08.12.2022

### Cell culture

**Morphology:** human ES cell phenotype colonies

**Cell culture method:** monolayer

**Cell culture medium:** DMEM/F12, 20% KSR, NEAA 1%, Glutamine 1%, PenStrep 1%, 2-Mercaptoethanol 0.1 mM, bFGF 20 ng/ml

**Cell culture conditions:** 37°C, 5% CO<sub>2</sub>

**Passage protocol:** manual passage with the ratio 1:5 - 1:6

**Cryoconservation:** 90% KSR, 10% DMSO

**Cryoconservation cell concentration:** 0.5 mln cells / ml

**Cell viability after cryoconservation:** 5%

**Additional information:** Plastic is coated with 0.1% gelatin. 13.5 dpc fibroblasts of ICR mouse strain are used as feeder cells

### References: