



Cedars-Sinai RMI Induced Pluripotent Stem Cell (iPSC) Core  
Certificate of Analysis (COA)

Cell Line Name	
CS Vial ID #(s)	
Date Vialled	
Passage Number	

The following testing specifications have been met for the specified cell line:

Test Description	Test Specification	Result
Mycoplasma	No contamination detected	
Alkaline Phosphatase Staining	Positive AP staining	
Karyotype by G-Banding	Normal Karyotype	
<b>Pluripotency</b>		
<i>Illumina gene-chip expression and bioinformatics assay (<a href="#">PluriTest</a>)</i>	Pluripotency score $\geq 20$ and novelty score $\leq 1.6$	
<i>Immunocytochemistry (IF-IC)</i>	OCT3/4, NANOG, SOX2, TRA-1-60, TRA-1-81, SSEA4	
<a href="#">TagMan® hPSC Scorecard™ Assay</a>	Confirm appropriate expression of self-renewal factors	
<b>Differentiation</b>		
<i>EB Formation</i>	Successful Embryoid Body (EB) formation and trilineage potential after 14 days	
<a href="#">TagMan® hPSC Scorecard™ Assay</a>	Confirm tri-lineage differentiation potential <i>Endoderm, Ectoderm and Mesoderm</i>	
<b>Plasmid Integration</b>		
<i>Genomic DNA PCR</i>	Confirm lack of exogenous plasmid presence	
<b>Parent Cell Line Lineage Determination</b>		
<a href="#">TCRB + TCRG T-Cell Clonality Assay</a> <i>(Blood derived cell lines only)</i>	Confirm presence or absence of clonal T-cell receptor beta chain and gamma chain gene rearrangements in iPSCs	
<b>Cell Line Authentication</b>		
<a href="#">STR Analysis</a>	Confirm identity matching score is above 80%	

DHRUV SAREEN, Ph.D  
CORE DIRECTOR



**CONTACT INFORMATION:**

**Core Director:**

Dhruv Sareen, Ph.D.

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Cedars-Sinai RMI Induced Pluripotent Stem Cell Core

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**PARENT LINE IDENTIFICATION AND INFORMATION:**

Parent Cell Line: \_\_\_\_\_

Age at Tissue Sampling: \_\_\_\_\_

Phenotypic Sex:

Male

Female

Clinical Diagnosis (if known): \_\_\_\_\_

Specific Mutations (if known): \_\_\_\_\_

Additional Information:

**REPROGRAMMING INFORMATION:**

iPSC Line Name: \_\_\_\_\_

Vial ID(s): \_\_\_\_\_

Starting Cell Type:

PBMC

Fibroblast

Other: \_\_\_\_\_

Reprogramming Method:

Episomal

Sendai Virus

Other: \_\_\_\_\_

Reprogramming Factors:

Oct3/4

Sox2

KLF4

L-Myc

shp53

Lin28

Other: \_\_\_\_\_

**CULTURING INFORMATION:**

***MEDIUM:***

Growth Medium: \_\_\_\_\_

Company: \_\_\_\_\_

Catalog #: \_\_\_\_\_



**SUBSTRATE:**

Substrate Specification: \_\_\_\_\_  
Company: \_\_\_\_\_  
Catalog #: \_\_\_\_\_  
Coating Concentration: \_\_\_\_\_

**PASSAGING METHOD:**

Method:	STEMPRO EZPassage Tool	Versene (EDTA)	ReLeSR
Passaging Frequency:	7 days	7 days	7 days
Average Split Ratio:	1:6	1:9	1:6
Cell Line Preferred Method:			

Rate of Differentiation:     High (≥50%)                       Moderate (30-40%)                       Low (≤20%)

Freezing Media: \_\_\_\_\_

Recovery Media: \_\_\_\_\_

**CHARACTERIZATION OF UNDIFFERENTIATED PLURIPOTENT CELL LINE:**

**G-BAND KARYOTYPE:**

Performed By: \_\_\_\_\_

Passage Number: \_\_\_\_\_

Karyotyping Analysis & Results: \_\_\_\_\_

Interpretation: \_\_\_\_\_

Comments:

**PLURITEST:**

Final Result:                       Pass                       Fail                       Further Evaluate                       TBD

Pluripotency Score: \_\_\_\_\_

Novelty Score: \_\_\_\_\_



**IMMUNOCYTOCHEMISTRY:**

Pluripotency Marker:

AP	SSEA-4	Tra-1-60	Tra-1-81	Nanog	Oct4	Sox2

**PLASMID INTEGRATION ANALYSIS:**

Absence of plasmid integration confirmed by gDNA PCR:

Result:

Passage #: \_\_\_\_\_

EBNA Negative	EBNA Positive	TBD

**CHARACTERIZATION OF DIFFERENTIATION POTENTIAL:**

This cell line has been assessed for differentiation potential by:

\_\_ 14 Day Embryoid Body Formation      \_\_ TaqMan® hPSC Scorecard™ Assay      \_\_ PCR

**hPSC SCORECARD DATA ANALYSIS:**

iPSC (Day 0):

Score:

EBs (Day 14):

Score:

Comments:

Self-Renewal	Endoderm	Ectoderm	Mesoderm

**PARENT CELL LINE LINEAGE DETERMINATION:**

(Blood derived cell lines only)

T-Cell Clonality Assay:

Final Result:

TCR-αβ		TCR-γδ	
__ Positive	__ Negative	__ Positive	__ Negative

\_\_ T-Cell Derived      \_\_ Non T-Cell Derived      \_\_ TBD



iPSC Line: \_\_\_\_\_

**CELL LINE AUTHENTICATION:**

Parent Cell Line:

AMEL	CSF1PO	D13S317	D16S539	D5S818	D7S820	TH01	TPOX	vWA

iPSC Line:

AMEL	CSF1PO	D13S317	D16S539	D5S818	D7S820	TH01	TPOX	vWA

% Identity Match: \_\_\_\_\_

IDEXX IBR #(s): \_\_\_\_\_

**ADDITIONAL INFORMATION:**



1

A pair of medium-sized, metacentric chromosomes.

2

A pair of medium-sized, metacentric chromosomes.

3

A pair of medium-sized, metacentric chromosomes.

4

A pair of medium-sized, metacentric chromosomes.

5

A pair of medium-sized, metacentric chromosomes.

6

A pair of medium-sized, metacentric chromosomes.

7

A pair of medium-sized, metacentric chromosomes.

8

A pair of medium-sized, metacentric chromosomes.

9

A pair of medium-sized, metacentric chromosomes.

10

A pair of medium-sized, metacentric chromosomes.

11

A pair of medium-sized, metacentric chromosomes.

12

A pair of medium-sized, metacentric chromosomes.

13

A pair of medium-sized, metacentric chromosomes.

14

A pair of medium-sized, metacentric chromosomes.

15

A pair of medium-sized, metacentric chromosomes.

16

A pair of medium-sized, metacentric chromosomes.

17

A pair of medium-sized, metacentric chromosomes.

18

A pair of small, acrocentric chromosomes.

19

A pair of small, acrocentric chromosomes.

20

A pair of small, acrocentric chromosomes.

21

A pair of small, acrocentric chromosomes.

22

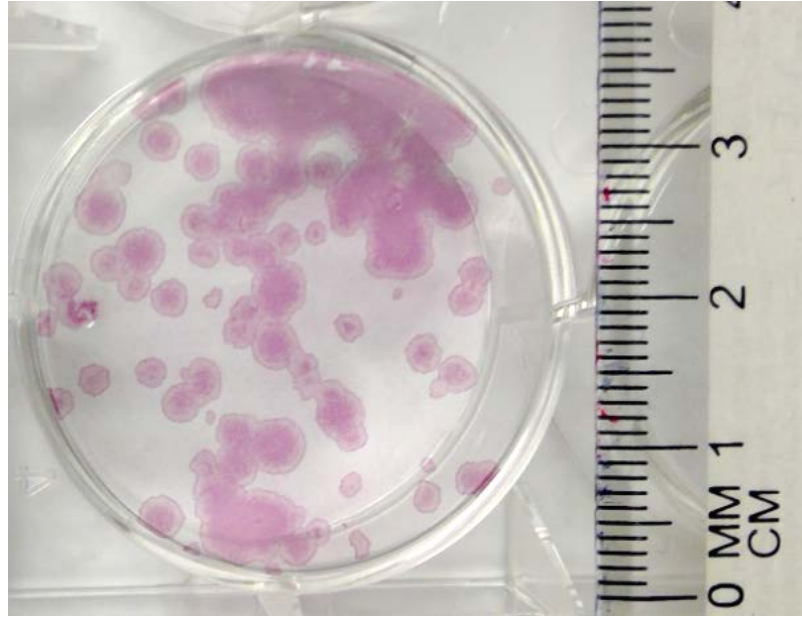
A pair of large, acrocentric chromosomes, characteristic of the X chromosome.

X

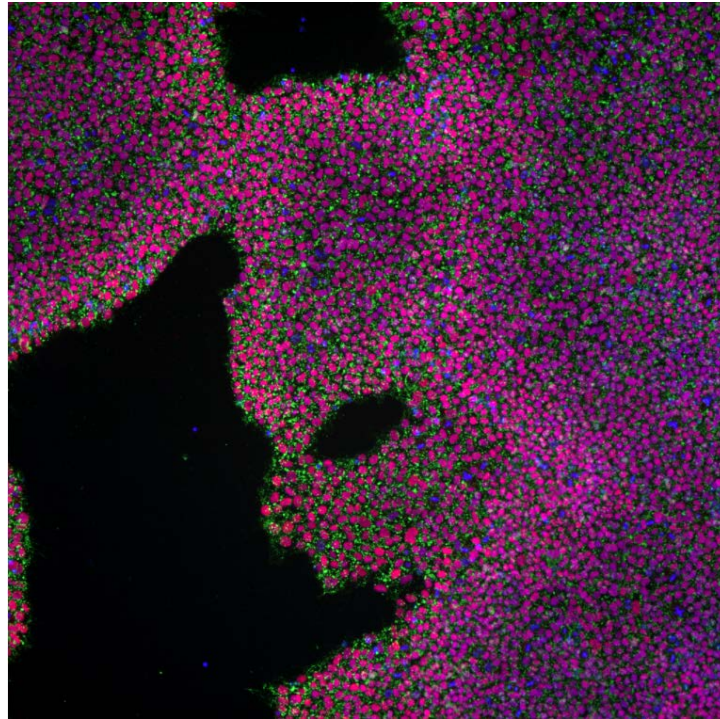
Y

CS0791iCTR-LBCn1

Alkaline Phosphatase Staining

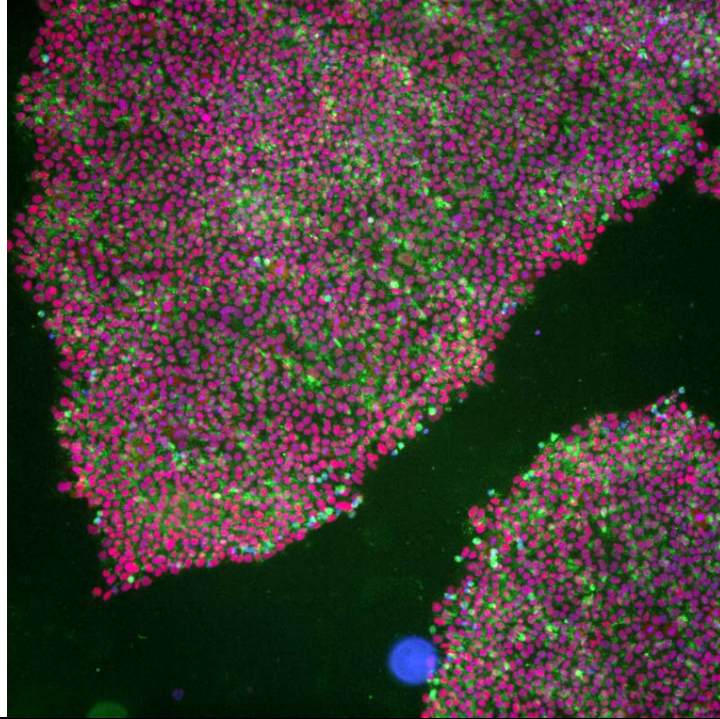


Oct4/SSEA4/DAPI





Sox2/Tra-1-81/DAPI



Nanog/Tra-1-60/DAPI

