



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 | |
| Pluripotency | | |
| <i>Illumina gene-chip expression and bioinformatics assay (PluriTest)</i> | Pluripotency score ≥ 20 and novelty score ≤ 1.6 | |
| <i>Immunocytochemistry (IF-IC)</i> | OCT3/4, NANOG, SOX2, TRA-1-60, TRA-1-81, SSEA4 | |
| TagMan® hPSC Scorecard™ Assay | Confirm appropriate expression of self-renewal factors | |
| Differentiation | | |
| <i>EB Formation</i> | Successful Embryoid Body (EB) formation and trilineage potential after 14 days | |
| TagMan® hPSC Scorecard™ Assay | Confirm tri-lineage differentiation potential <i>Endoderm, Ectoderm and Mesoderm</i> | |
| Plasmid Integration | | |
| <i>Genomic DNA PCR</i> | Confirm lack of exogenous plasmid presence | |
| Parent Cell Line Lineage Determination | | |
| TCRB + TCRG T-Cell Clonality Assay <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 | |
| Cell Line Authentication | | |
| STR Analysis | Confirm identity matching score is above 80% | |

DHRUV SAREEN, Ph.D
CORE DIRECTOR



CONTACT INFORMATION:

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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



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22



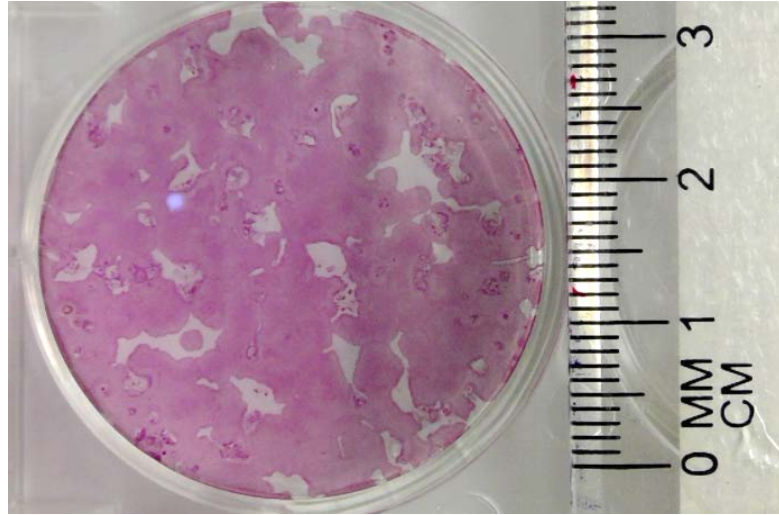
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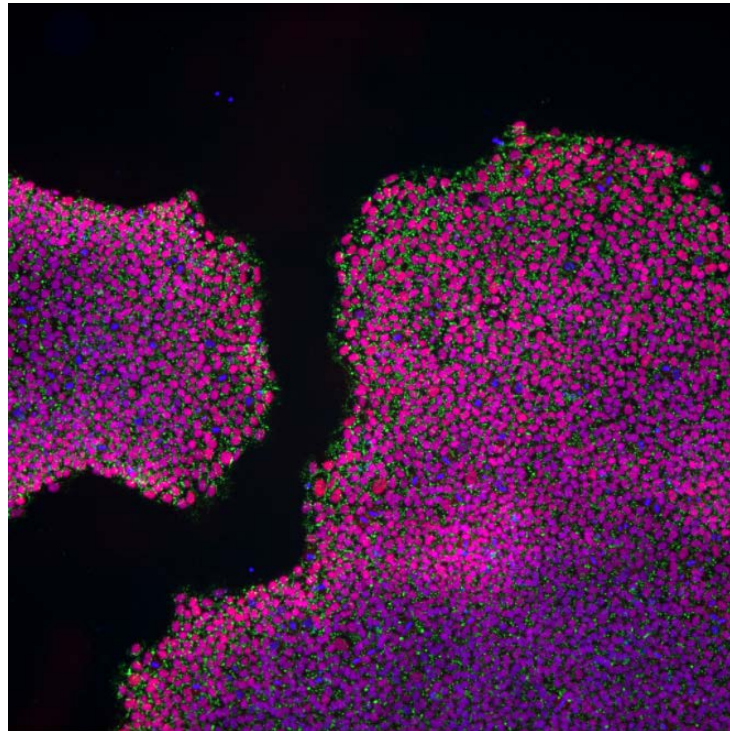
Y

CS0617iCTR-LBCn1

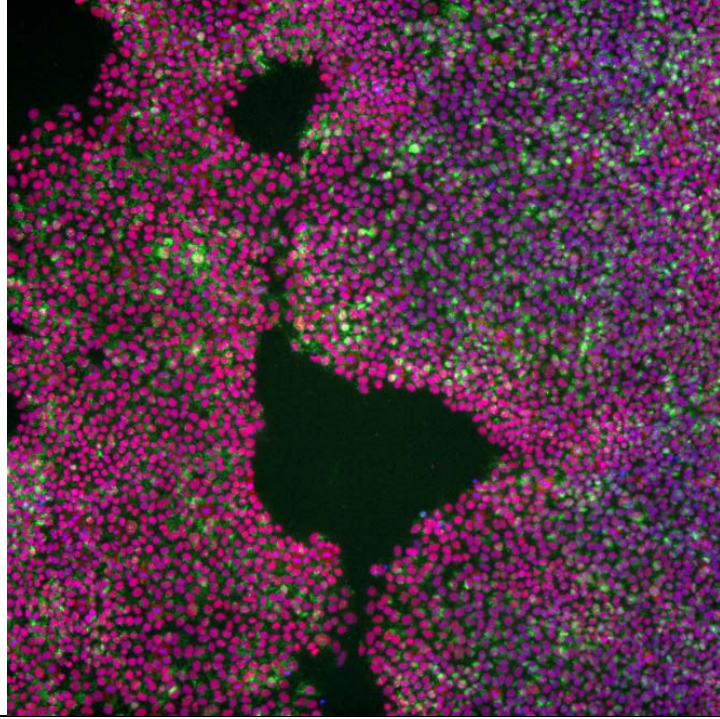
Alkaline Phosphatase
Staining



Oct4/SSEA4/DAPI



Sox2/Tra-1-81/DAPI



Nanog/Tra-1-60/DAPI

