

Thaw and Culture Details

| Cell Line Name | PENN149i-M1-6 | | |
|----------------------------------|---|--|--|
| WiCell Lot Number | DB36089 | | |
| Provider | University of Pennsylvania – Dr. Daniel Rader | | |
| Banked By | Penn Institute for Regenerative Medicine iPS Core Facility | | |
| Thaw and Culture Recommendations | WiCell recommends thawing 1 vial into 2 wells of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results. | | |
| Culture Platform | Feeder Dependent | | |
| | Medium: hESC Medium (KOSR) | | |
| | Matrix: MEF | | |
| Protocol | WiCell Feeder Dependent Protocol | | |
| Passage Number | p16 These cells were cultured for 16 passages prior to freeze and post colony picking. Therefore, plated cells at thaw should be labeled passage 17. | | |
| Date Vialed | 09-May-2014 | | |
| Vial Label | iPS-PB-sev M1 sev6 P16 5/9/14 RY | | |
| Biosafety and Use Information | Appropriate biosafety precautions should be followed when working with these cells. The end user is responsible for ensuring that the cells are handled and stored in an appropriate manner. WiCell is not responsible for damages or injuries that may result from the use of these cells. Cells distributed by WiCell are intended for research purposes only and are not intended for use in humans. | | |

Testing Performed by WiCell

| Test Description | Test Provider | Test Method | Test Specification | Result |
|-----------------------------------|---|---|--|------------|
| Karyotype by G-banding | WiCell | SOP-CH-003 | Expected karyotype | See Report |
| Post-Thaw Viable Cell Recovery | WiCell | SOP-CH-305 | Recoverable attachment after passage | Pass |
| Identity by STR | UW Translational Research Initiatives in Pathology Laboratory | PowerPlex 16 HS System by Promega | Defines STR profile of deposited cell line | Pass |
| Sterility | Steris | ST/07 | Negative | Pass |
| Mycoplasma | WiCell | SOP-CH-044 | Negative | Pass |

Testing Reported by Provider

The Provider stated that some or all of the additional analyses listed below may have been performed for this cell line. For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

- SNP microarray
- Flow Cytometry (Tra1-60 and SSEA-4)
- Differentiation into hepatocytes
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGAEX)



| Approval Date | Quality Assurance Approval |
|---------------|--|
| 27-June-2016 | 12/18/2019 X JKG JKG Quality Assurance Signed by Gay, Jenna |



Chromosome Analysis Report: 079366

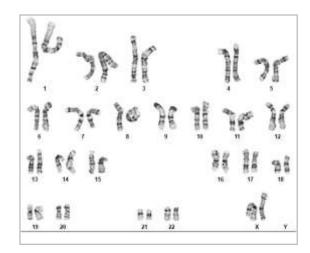
Date Reported: Wednesday, December 11, 2019 Cell Line Sex: Female

Cell Line: PENN149i-M1-6-DB36089 15171 Reason for Testing: Lot release testing

Passage#: 18

Date of Sample: 12/4/2019 Investigator: _____, WiCell Specimen: Human IPSC

Results: 46,XX



Cell: 56 Slide: G01

Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8

Total Karyogrammed: 4

Band Resolution: 425 - 475

OC Poviou Pv

Interpretation:

Data.

This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution.

Completed by: , CG(ASCP)

Reviewed and Interpreted by: , Ph.D.

Cant Dir

| Date | Sent by | Jent 10 | QU Neview by |
|------|---------|---------|--------------|
| | | | |
| | | | |

Limitations: This assay allows for microscopic visualization of numerical and structural chromosome abnormalities. The size of structural abnormality that can be detected is >3-10Mb, dependent upon the G-band resolution obtained from this specimen. For the purposes of this report, band level is defined as the number of G-bands per haploid genome. It is documented here as "band level", i.e., the range of bands determined from the four karyograms in this assay. Detection of heterogeneity of clonal cell populations in this specimen (i.e.,mosaicism) is limited by the number of metaphase cells examined, documented here as "# of cells counted".

This assay was conducted solely for listed investigator/institution. The results of this assay are for research use only. Unless otherwise mutually agreed in writing, the services provided to you hereunder by WiCell Research Institute, Inc. ("WiCell") are governed solely by WiCell's Terms and Conditions of Service, found at www.wicell.org/privacyandterms. Any terms you may attach to a purchase order or other document that are inconsistent, add to, or conflict with WiCell's Terms and Conditions of Service are null and void and of no legal force or effect.



TRIP Laboratory (Molecular)

Short Tandem Repeat

Analysis



characterization@wicell.org (608) 316-4145

Requestor:

WiCell Research Institute Quality Assurance Department

Report Sent: 12/16/19 **Assav Date:** 12/10/19

Receive Date: 12/05/19

File Name: STR 191212 wmr

Report Date: 12/16/19

| S | a | m | plo | e I | Re | po | r | t: |
|---|---|---|-----|-----|----|----|---|----|
| | | | | | | | | |

15171-STR

(608) 265-9168

Sample Name on Tube: 15171-STR

Department of Pathology and Laboratory Medicine

https://research.pathology.wisc.edu/trip-home/

 $75.3 \text{ ng/}\mu\text{L}$, (A260/280=1.86)

Sample Type: Cells

Cell Count: ~2 million cells

| STR Locus | STR Genotype Repeat # | STR Genotype |
|------------|---|------------------------------|
| FGA | 16–18,18.2,19,19.2,20,20.2,21,21.2,22, 22.2, 23, 23.2, 24, 24.2, 25, 25.2, 26–30, 31.2, 43.2, 44.2,45.2, 46.2 | Identifying information has |
| TPOX | 6-13 | been redacted to |
| D8S1179 | 7-18 | protect donor |
| vWA | 10-22 | confidentiality. If |
| Amelogenin | X,Y | more information |
| Penta_D | 2.2, 3.2, 5, 7-17 | is required, please, contact |
| CSF1PO | 6-15 | WiCell's Technical |
| D16S539 | 5, 8-15 | Support. |
| D7S820 | 6-14 | <u> </u> |
| D13S317 | 7-15 | - |
| D5S818 | 7-16 | - |
| Penta_E | 5-24 | |
| D18S51 | 8-10, 10.2, 11-13, 13.2, 14-27 | - |
| D21S11 | 24,24.2,25,25.2,26-28,28.2,29,29.2, 30, 30.2,31, 31.2,32,32.2,33,33.2, 34,34.2,35,35.2,36-38 | |
| TH01 | 4-9,9.3,10-11,13.3 | |
| D3S1358 | 12-20 | |

Results: Based on the 15171-STR cells submitted by WiCell QA dated and received on 12/05/19, this sample (Label on Tube: 15171-STR) defines the STR profile of the human cell line PENN149i-M1-6 comprising 29 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human PENN149i-M1-6 cell line were detected and the concentration of DNA required to achieve an acceptable STR genotype (signal/ noise) was equivalent to that required for the standard procedure (~1 ng/amplification reaction) from human genomic DNA. This result suggests that the 15171-STR sample submitted corresponds to the PENN149i-M1-6 cell line and was not contaminated with any other human cells or a significant amount of mouse feeder layer cells.

Sensitivity: Sensitivity limits for detection of STR polymorphisms unique to either this or other human cell lines is $\sim 2-5\%$.

X WMR \mathbf{X} RMB Digitally Signed on 12/16/19 Digitally Signed on 12/16/19 ■ PhD, Director / Co-Director TRIP Laboratory, Molecular UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

Native Product Sterility Report



SAMPLE #:

19111615

WiCell

DATE RECEIVED:

21-Nov-19

504 S Rosa Road, Rm 101

TEST INITIATED:

26-Nov-19

Madison, WI 53719

TEST COMPLETED:

10-Dec-19

SAMPLE NAME / DESCRIPTION:

WC051i-FX08-23 WB67327 15143

STAN140i-243C1 WB67329 15144

MIN13i-33362.D WB67326 15145 JHU050i WB67328 15146

WC060i-226-1-2-22 WB67334

15147

WTB DB66964 15148

PENN014i-37-3 DB36309 15149 PENN016i-821-1 DB35119 15150 PENN149i-M1-6 DB36089 15162 PENN151i-M1-5 DB36083 15163

UNIQUE IDENTIFIER:

NA

TEST RESULTS:

| # Tested | # Positives (Growth) | - Control |
|----------|-------------------------|-------------|
| 10 | 0 | 2 Negatives |

TEST SUMMARY:

| # Samples | Media Type | Volume (mL) | Incubation Temperature (° C) | Incubation Duration (Days) |
|-----------|------------|-------------|------------------------------------|----------------------------------|
| 10 | TSB | 40 | 20-25 | 14 |
| 10 | FTG | 40 | 30-35 | 14 |

REFERENCE:

Processed according to LAB-003: Sterility Test Procedure

PD #:

000053

TEST METHODOLOGY:

USP - Direct Transfer

COMMENTS:

NA

REVIEWED BY

DATE 11 pec19

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. This test report shall not be reproduced, except in full, without prior written approval. Liability is limited to the costs of the tests. Results applied to samples as received.

WiCell®

Mycoplasma Assay Report

PCR-based assay performed by WiCell WiCell 04Dec19

| Sample Name | Result | Comments/Suggestions |
|---|----------|---|
| WISCi014-A-3-WB67355 15178 (79343) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| WISCi014-A-1-WB67353 15179 (79344) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| WISCi014-A-2-WB67354 15180 (79345) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| WC061i-226-1-2-23-WB67359 15174 (79346) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| INC170 02Dec19 MMM (79347) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| INC123 02Dec19 KR (79348) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| INC149 02Dec19 AP (79349) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| PENN149i-M1-6-DB36089 15171 (79350) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| PENN151i-M1-5-DB36083 15172 (79351) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| WC063i-247-1-2-18-DB67336 15177 (79352) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| WC064i-247-1-2-22-DB67337 15181 (79353) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| WC066i-310-17-2-27-DB67341 15176 (79354) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| WC067i-310-17-2-33-DB67342 15182 (79355) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| WC069i-335-1-2-28-DB67344 15175 (79356) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| WC070i-335-1-2-30-DB67345 15183 (79357) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| Positive (+) Control | Positive | |
| Negative (-) Control | Negative | |

Reported by: Molly Miles, Cell Culture Specialist Reviewed by: Katie Remondini, Cell Culture Specialist

Unless otherwise mutually agreed in writing, the services provided to you hereunder by WiCell Research Institute, Inc. ("WiCell") are governed solely by WiCell's Terms and Conditions of Service, found at www.wicell.org/privacyandterms. Any terms you may attach to a purchase order or other document that are inconsistent, add to, or conflict with WiCell's Terms and Conditions of Service are null and void and of no legal force or effect.

A gel image is available upon request.