



## Thaw and Culture Details

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cell Line Name                   | JFRBi5                                                                                                                                                                                                                                                                                                                                                                                                     |
| WiCell Lot Number                | WB66569                                                                                                                                                                                                                                                                                                                                                                                                    |
| Provider                         | Jain Foundation                                                                                                                                                                                                                                                                                                                                                                                            |
| Banked By                        | WiCell                                                                                                                                                                                                                                                                                                                                                                                                     |
| Thaw and Culture Recommendations | WiCell recommends thawing 1 vial into 3 wells of a 6 well plate.                                                                                                                                                                                                                                                                                                                                           |
| Culture Platform                 | Feeder Independent                                                                                                                                                                                                                                                                                                                                                                                         |
|                                  | Medium: TeSR™-E8™                                                                                                                                                                                                                                                                                                                                                                                          |
|                                  | Matrix: Matrigel®                                                                                                                                                                                                                                                                                                                                                                                          |
| Protocol                         | WiCell Feeder Independent E8 Medium Protocol                                                                                                                                                                                                                                                                                                                                                               |
| Passage Number                   | p8<br>These cells were cultured for 7 passages prior to freeze and post reprogramming. WiCell adds +1 to the passage number to best represent the overall passage number of the cells at thaw.                                                                                                                                                                                                             |
| Date Vialied                     | 29-August-2017                                                                                                                                                                                                                                                                                                                                                                                             |
| Vial Label                       | JFRBi5<br>p8<br>WB66569                                                                                                                                                                                                                                                                                                                                                                                    |
| 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.<br>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                                                                                | Pass   |
| Post-Thaw Viable Cell Recovery | WiCell                                                        | SOP-CH-305                        | ≥ 15 Undifferentiated Colonies,<br>≤ 30% Differentiation and recoverable attachment after passage | Pass   |
| Identity by STR                | UW Translational Research Initiatives in Pathology Laboratory | PowerPlex 16 HS System by Promega | Defines profile                                                                                   | Pass   |
| Sterility                      | Steris                                                        | ST/07                             | Negative                                                                                          | Pass   |
| Mycoplasma                     | WiCell                                                        | SOP-QU-004                        | Negative                                                                                          | Pass   |



## Testing Reported by Provider

*This testing was performed prior to banking unless otherwise specified.*

| Test Description    | Method                                                                                                                                                                                                          | Result                                                                                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Genetic Analysis    | Karyotype by G-Banding                                                                                                                                                                                          | Normal Karyotype                                                                                |
| Pluripotency        | Multiplex RT-PCR to quantify endogenous expression of 7 genes. Scores generated from the analysis predict probability samples are iPSC-like.                                                                    | Passing sample score $\geq 0.9$                                                                 |
| Mycoplasma          | Commercially available mycoplasma detection kit.                                                                                                                                                                | Negative                                                                                        |
| Human Virus Testing | HIV I/II CPT Code 87389; detects both antigen and antibodies for HIV I and HIV II.<br>HBV CPT Code 87340; detects Hepatitis B surface antigen.<br>HCV CPT Code 86803; Immunoassay detects Hepatitis C antibody. | Donor samples tested negative for the following human viruses.<br>HIV I<br>HIV II<br>HBV<br>HCV |
| Identity            | Multiplex STR analysis of 9 commonly used alleles.                                                                                                                                                              | Match of iPS cell line to incoming donor material.                                              |

| Approval Date   | Quality Assurance Approval                                                                           |
|-----------------|------------------------------------------------------------------------------------------------------|
| 12-October-2017 | <div>11/16/2017</div> <div>X JKG</div> <div>JKG<br/>Quality Assurance<br/>Signed by Gay, Jenna</div> |

**Date Reported:** Friday, October 06, 2017

**Cell Line:** JFRBi5-WB66569 12833

**Passage#:** 8

**Date of Sample:** 9/28/2017

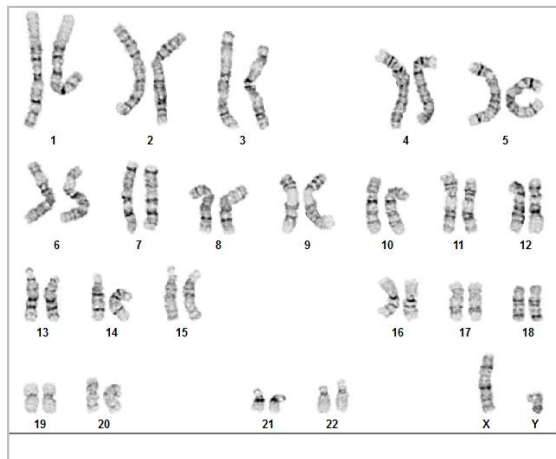
**Specimen:** Human IPS

**Results:** 46,XY

**Cell Line Gender:** Male

**Reason for Testing:** lot release testing

**Investigator:** [REDACTED]



**Cell:** 20

**Slide:** G01

**Slide Type:** Karyotype

**Total Counted:** 20

**Total Analyzed:** 8

**Total Karyogrammed:** 4

**Band Resolution:** 450 - 475

## Interpretation:

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

**Completed by:** [REDACTED]

**Reviewed and Interpreted by:** [REDACTED]

**A signed copy of this report is available upon request.**

**Date:** \_\_\_\_\_ **Sent By:** \_\_\_\_\_ **Sent To:** \_\_\_\_\_ **QC Review 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 may not be relied upon by any other party without the prior written consent of the Director of the WiCell Cytogenetics Laboratory. The results of this assay are for research use only. If the results of this assay are to be used for any other purpose, contact the Director of the WiCell Cytogenetics Laboratory.*

*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](http://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.*

# Short Tandem Repeat Analysis

Department of Pathology and Laboratory Medicine  
TRIP Laboratory (Molecular)  
<http://www.pathology.wisc.edu/research/trip>

**Sample Report:**

12833-STR  
**Sample Name on Tube:** 12833-STR  
80.1 ng/μL, (A260/280=1.85)  
**Sample Type:** Cells  
**Cell Count:** ~2 million cells

**Requestor:**

WiCell Research Institute  
Quality Department

**Sample Date:** N/A

**Receive Date:** 10/02/17  
**Assay Date:** 10/05/17  
**File Name:** STR 171006 wmr  
**Report Date:** 10/11/17

| 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 been redacted to protect donor confidentiality. If more information is required, please, contact <a href="#">WiCell's Technical Support</a> . |
| TPOX       | 6-13                                                                                                          |                                                                                                                                                                           |
| D8S1179    | 7-18                                                                                                          |                                                                                                                                                                           |
| vWA        | 10-22                                                                                                         |                                                                                                                                                                           |
| Amelogenin | X,Y                                                                                                           |                                                                                                                                                                           |
| Penta_D    | 2.2, 3.2, 5, 7-17                                                                                             |                                                                                                                                                                           |
| CSF1PO     | 6-15                                                                                                          |                                                                                                                                                                           |
| D16S539    | 5, 8-15                                                                                                       |                                                                                                                                                                           |
| D7S820     | 6-14                                                                                                          |                                                                                                                                                                           |
| 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 12833-STR cells submitted by WiCell QA dated and received on 10/05/17, this sample (Label on Tube: 12833-STR) defines the STR profile of the human stem cell line JFRBi5 comprising 28 allelic polymorphisms across the 15 STR loci analyzed.

**Interpretation:** No STR polymorphisms other than those corresponding to the human JFRBi5 stem 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 12833-STR sample submitted corresponds to the JFRBi5 stem cell line and was not contaminated with any other human stem 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 stem cell lines is ~2-5%.

X<sub>RMB</sub>

Digitally Signed on 10/12/17

TRIP Laboratory, Molecular

X<sub>WMR</sub>

Digitally Signed on 10/12/17

, PhD, Director / Co-Director  
UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

# Native Product Sterility Report



WiCell  
504 S Rosa Rd, Rm 101  
Madison, WI 53719

**CORRECTED  
REPORT**

SAMPLE #: 17090875  
DATE RECEIVED: 14-Sep-17  
TEST INITIATED: 18-Sep-17  
TEST COMPLETED: 02-Oct-17

SAMPLE NAME / DESCRIPTION: MCW003i-40001883-WB66553\_12835, MCW047i-U2234-WB66549\_12836, MCW071i-U2177-WB66552\_12837, MCW086i-40000176-WB66545\_12838, MCW090i-40000374-WB66557\_12839, MCW091i-U2202-WB66554\_12840, MCW097i-400001654-WB66548\_12841, MCW112i-40000893-WB66551\_12842, MCW116i-40001890-WB66550\_12843, MCW073i-40000527-WB66570\_12844, MCW060i-U2183-WB66559\_12845, JFHZ4-WB66573\_12846, JFHZ5-WB66587\_12847, JFHZ6-WB66583\_12848, JFMD6-WB66581\_12849, JFNY2-WB66584\_12850, JFRB5-WB66569\_12851, JFWT2-WB66586\_12852, JFWT4-WB66582\_12853, UCSD239i-APP2-1-WB66585\_12854, MCW100i-U2341-WB66575\_12881, MCW114i-U2144-WB66566\_12882, iPS(IMR90)-2-WB66588\_12883, UCSD035i-4-4-WB62259\_12884, UCSD064i-20-2-WB63303\_12885, UCSD143i-87-1-WB57685\_12886, UCSD161i-93-1-WB54536\_12887, UCSD199i-107-1-WB59910\_12888, UCSD209i-24-1-WB57661\_12889, UCSD081i-1-14-WB61903\_12890

UNIQUE IDENTIFIER: NA  
PRODUCT REGISTRATION: Other: Human iPS Cells

## TEST RESULTS:

| # Tested | # Positives<br>(Growth) | - Control   |
|----------|-------------------------|-------------|
| 30       | 0                       | 2 Negatives |

## TEST SUMMARY:

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

REFERENCE: Processed according to LAB-003: Sterility Test Procedure  
METHOD VALIDATION / PD #: 000053  
TEST METHODOLOGY: USP - Direct Transfer

# Native Product Sterility Report

CORRECTED  
REPORT



STERIS

COMMENTS:

Sample # 17090875

Report revised due to Customer request to update Sample Name / Description.

REVIEWED BY

DATE

09/04/17

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.



# Mycoplasma Detection Assay Report

Testing Performed by WiCell

Lot Release Testing

September 25, 2017

FORM SOP-QU-004.01

Version F Edition 02

Reported by: KR

Reviewed by: JB

BD Monolight 180

| # | Sample Name          | Reading A |      | A<br>Ave | Reading B |       | B<br>Ave | Ratio<br>B/A | Result   | Comments/Suggestions |
|---|----------------------|-----------|------|----------|-----------|-------|----------|--------------|----------|----------------------|
|   |                      | RLU1      | RLU2 |          | RLU1      | RLU2  |          |              |          |                      |
| 1 | JFRBi5-WB66569 12833 | 340       | 352  | 346      | 99        | 98    | 98.5     | 0.28         | Negative |                      |
| 2 | Positive (+) Control | 466       | 487  | 476.5    | 37344     | 37714 | 37529    | 78.76        | Positive |                      |
| 3 | Negative (-) Control | 780       | 791  | 785.5    | 81        | 86    | 83.5     | 0.11         | Negative |                      |

