



Thaw and Culture Details

| | |
|----------------------------------|--|
| Cell Line Name | JHU054i |
| WiCell Lot Number | DB41080 |
| Provider | Johns Hopkins University – Laboratory of Dr. Lewis Becker |
| Banked By | Johns Hopkins University – Laboratory of Dr. Lewis Becker |
| Thaw and Culture Recommendations | WiCell recommends thawing 1 vial into 3 wells of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results. |
| Culture Platform | Feeder Independent |
| | Medium: E8 |
| | Matrix: Vitronectin |
| Protocol | WiCell Feeder Independent E8 Medium Protocol |
| Passage Number | p7 These cells were cultured for 7 passages post reprogramming prior to freeze. Add +1 to the passage number to best represent the overall passage number of the cells at thaw. |
| Date Vialied | 23-May-2016 |
| Vial Label | P54 P7 1.2X10 ⁶ 5/23/16 |
| 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 profile | Pass |
| Sterility | Steris | ST/07 | Negative | Pass |
| Mycoplasma | WiCell | SOP-QU-004 | 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.

- Embryoid bodies
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGA^{EX})



| Approval Date | Quality Assurance Approval |
|----------------|--|
| 26-August-2016 | <p style="text-align: right;">1/28/2022</p> <p>X HEB</p> <p>HEB Quality Assurance Signed by: Bruner, Haley</p> |

Date Reported: Tuesday, May 29, 2018

Cell Line: JHU054i-DB41080 13720

Passage#: 9

Date of Sample: 5/22/2018

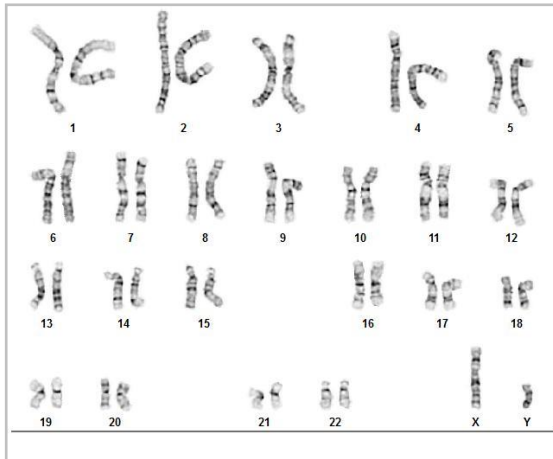
Specimen: Human IPS

Results: 46,XY

Cell Line Sex: Male

Reason for Testing: lot release testing

Investigator: [REDACTED], WiCell



Cell: 1

Slide: G02

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyogrammed: 4

Band Resolution: 475 - 525

Interpretation:

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

Completed by: [REDACTED], CG(ASCP)

Reviewed and Interpreted by: [REDACTED], PhD, FACMG

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. 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.

Sample Report:

13720-STR

Sample Name on Tube: 13720-STR

50.3 ng/μL, (A260/280=1.92)

Sample Type: Cells**Cell Count:** ~2 million cells**Requestor:**

WiCell Research Institute

Quality Department

Sample Date: N/A**Receive Date:** 05/29/18**Assay Date:** 05/29/18**File Name:** STR 180530c wmr**Report Date:** 06/04/18

| 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 WiCell's Technical Support . |
| 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 13720-STR cells submitted by WiCell QA dated and received on 05/29/18, this sample (Label on Tube: 13720-STR) defines the STR profile of the human stem cell line JHU054i comprising 29 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human JHU054i 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 13720-STR sample submitted corresponds to the JHU054i 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%.



Digitally Signed on 06/05/18

[Redacted], BA
TRIP Laboratory, Molecular

Digitally Signed on 06/05/18

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

Testing was accomplished by analysis of human genetic polymorphisms at STR loci. This methodology has not yet been approved by the FDA and is for investigational use only.

Acknowledge TRIP in your publications, posters & presentations. For details, see: <http://www.pathology.wisc.edu/research/trip/acknowledging>

TRIP agrees to maintain the confidentiality of any information provided to it in connection with its performance of this STR analysis on the same conditions as set forth in paragraph 2 of WiCell's Terms and Conditions of Service (<http://www.wicell.org/media.acux/1a429b84-2b54-44a4-8ad8-5c05db93dd8a>).

Native Product Sterility Report



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

SAMPLE #: 18050738
DATE RECEIVED: 10-May-18
TEST INITIATED: 14-May-18
TEST COMPLETED: 29-May-18

SAMPLE NAME / DESCRIPTION: UCSD165i-97-1 WB66795 13679
UCSD224i-NDC1-2 WB66797 13680
UCSD224i-NDC1-2 WB66798 13681
UWWC1-DS4 WB66799 13682
WC035i-SOD1-D90D WB66757 13683
JHU018i DB40957 13684
JHU032i DB36206 13685
JHU083i DB41146 13686
JHU126i DB36258 13687
JHU167i DB41380 13688
JHU190i DB36770 13689
JHU240i DB41420 13690
JHU054i DB41080 13691
JHU188i DB36766 13692
JHU084i DB41149 13693
JHU224i DB36895 13694
JHU250i DB36904 13695
JHU221i DB36885 13696
JHU218i DB36874 13697
JHU217i DB36868 13698

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

TEST RESULTS:

| # Tested | # Positives (Growth) | - Control |
|----------|----------------------|-------------|
| 20 | 0 | 3 Negatives |

TEST SUMMARY:

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

Native Product Sterility Report



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

COMMENTS: Sample #18050738

REVIEWED BY

A handwritten signature in blue ink, consisting of a large, stylized initial 'S' followed by a long horizontal line.

DATE

30 MAY 18

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

May 17, 2018

FORM SOP-QU-004.01

Version G Edition 02

Reported by: AP

Reviewed by: DF

BD Monolight 180

| # | Sample Name | Reading A | | A Ave | Reading B | | B Ave | Ratio B/A | Result | Comments/Suggestions |
|---|-----------------------|-----------|------|-------|-----------|-------|-------|-----------|----------|----------------------|
| | | RLU1 | RLU2 | | RLU1 | RLU2 | | | | |
| 1 | JHU054i-DB41080 13720 | 341 | 329 | 335 | 96 | 94 | 95 | 0.28 | Negative | |
| 2 | Positive (+) Control | 476 | 464 | 470 | 16959 | 17172 | 17066 | 36.31 | Positive | |
| 3 | Negative (-) Control | 793 | 780 | 786.5 | 65 | 70 | 67.5 | 0.09 | Negative | |

