



Thaw and Culture Details

Cell Line Name	JFMD1
WiCell Lot Number	WB66599
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 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	16-September-2017
Vial Label	JFMD1 p8 WB66599
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
	Results: 47,XY,+Y[4]/46,XY[16] Interpretation: This is an abnormal karyotype, with gain of a Y chromosome in four of twenty cells examined. No other clonal abnormalities were found.			
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and recoverable attachment after passage	Pass
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Consistent with known 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 ≥ 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. HBV CPT Code 87340; detects Hepatitis B surface antigen. HCV CPT Code 86803; Immunoassay detects Hepatitis C antibody.	Donor samples tested negative for the following human viruses. HIV I HIV II HBV HCV
Identity	Multiplex STR analysis of 9 commonly used alleles.	Match of iPS cell line to incoming donor material.

Approval Date	Quality Assurance Approval
01-November-2017	<div>4/20/2020</div> <div>X JKG</div> <div>JKG Quality Assurance Signed by Gay, Jenna</div>



Chromosome Analysis Report: 068623

Date Reported: Friday, October 06, 2017

Cell Line: JFMD1-WB66599 12913

Passage#: 8

Date of Sample: 9/28/2017

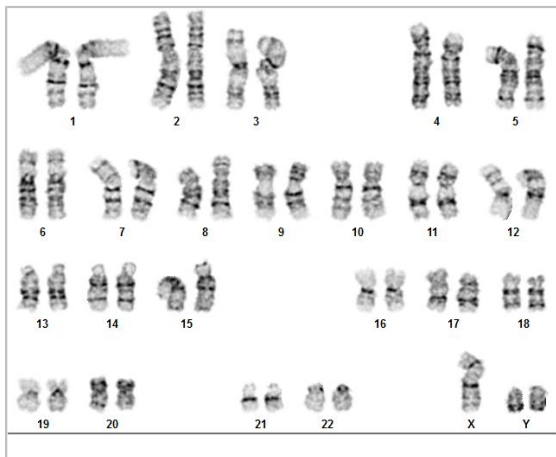
Specimen: Human IPS

Results: 47,XY,+Y[4]/46,XY[16]

Cell Line Gender: Male

Reason for Testing: none

Investigator: [REDACTED]



Cell: 9

Slide: G01

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 7

Total Karyogrammed: 4

Band Resolution: 425 - 475

Interpretation:

This is an abnormal karyotype, with gain of a Y chromosome in four of twenty cells examined. No other clonal abnormalities were found.

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. 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:

12913-STR
Sample Name on Tube: 12913-STR
93.4 ng/μL, (A260/280=1.89)
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 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 12913-STR cells submitted by WiCell QA dated and received on 10/05/17, this sample (Label on Tube: 12913-STR) exactly matches the STR profile of the human stem cell line JFMD1 comprising 26 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human JFMD1 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 12913-STR sample submitted corresponds to the JFMD1 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_{RMB}

Digitally Signed on 10/12/17

TRIP Laboratory, Molecular

X_{WMR}

Digitally Signed on 10/12/17

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

Native Product Sterility Report



CORRECTED REPORT

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

SAMPLE #: 17091273
DATE RECEIVED: 21-Sep-17
TEST INITIATED: 25-Sep-17
TEST COMPLETED: 09-Oct-17

SAMPLE NAME / DESCRIPTION: UCSD132i-78-1-WB61728 12898
UCSD153i-11-4-WB60259 12899
STAN053i-149-1-WB66592 12900
WA09-WB66593 12901
WA09-WB66594 12902
WA09-WB66595 12903
JFMD1-WB66599 12904
JFWT5-WB66596 12905
STAN008i-165-1-WB66600 12906
UCSD079i-1-12-WB58931 12907

UNIQUE IDENTIFIER: NA

PRODUCT REGISTRATION: Other: Human iPS cells

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	1	3 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

METHOD VALIDATION / PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

Native Product Sterility Report



COMMENTS:

Sample labeled as WA09-WB66594 12902 was positive.
Report revised due to corrected Comment.

**CORRECTED
REPORT**

REVIEWED BY

A handwritten signature in blue ink, consisting of a large 'C' followed by a series of loops and a long horizontal stroke.

DATE

21 Nov 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 Ave	Reading B		B Ave	Ratio B/A	Result	Comments/Suggestions
		RLU1	RLU2		RLU1	RLU2				
1	JFMD1-WB66599 12913	225	222	223.5	78	83	80.5	0.36	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	

