

### **Thaw and Culture Details**

Cell Line Name	iPS(Foreskin)-1					
WiCell Lot Number	WB66667					
Parent Material	iPS(Foreskin)-1-MCB-01					
Provider	Iniversity of Wisconsin – Dr. James Thomson					
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: mTeSR™1					
	Matrix: Matrigel®					
Protocol	WiCell Feeder Independent mTeSR <sup>™</sup> 1 Protocol					
Passage Number	p36 These cells were cultured for 35 passages prior to freeze. WiCell adds +1 to the passage number to best represent the overall passage number of the cells at thaw.					
Date Vialed	08-November-2017					
Vial Label	iPS(Foreskin)-1 p36 WB66667					
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	P-CH-003 Expected karyotype					
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	COP-CH-305 ≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and recoverable attachment after passage					
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Consistent with STR profile of deposited cell line	Pass				
Sterility	Steris	ST/07	Negative	Pass				
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass				

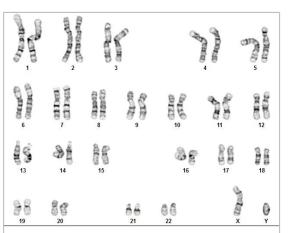
Approval Date	Quality Assurance Approval			
08-December-2017	7/14/2020 X AA Quality Ansurance Signed by Armst, Andy			

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The material provided under this certificate has been subjected to the tests specified and the results and data described herein are accurate based on WiCell's reasonable knowledge and belief. Appropriate Biosafety Level practices and universal precautions should always be used with this material. For clarity, the foregoing is governed solely by WiCell's Terms and Conditions of Service, which can be found at http://www.wicell.org/privacyandterms.



Date Reported: Tuesday, November 28, 2017 Cell Line: iPS(Foreskin)-1-WB666667 13090 Passage#: 36 Date of Sample: 11/20/2017 Specimen: Human IPSC Results: 46,XY



17	Cell Line Gender: Male Reason for Testing: lot release testing					
	Investigator: , WiCell CDM					
	Cell: 49					
	Slide: G01					
6	Slide Type: Karyotype					
	Total Counted: 20					
	Total Analyzadi 0					

Total Analyzed: 9 Total Karyogrammed: 5 Band Resolution: 450 - 550

#### Interpretation:

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

Completed by: Reviewed and Interpreted by: A signed copy of this report i		S, CG(ASCP) , PhD, FACMG equest.	
Date:	Sent By:	Sent To:	QC Review Bv:

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.

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#### HISTOLOGY - IHC - MOLECULAR - IMAGING

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

Sample Report: 13090-STR Sample Name on Tube: 13090-STR 103.1 ng/μL, (A260/280=1.86) Sample Type: Cells Cell Count: ~2 million cells **Requestor:** WiCell Research Institute Quality Department

Short Tandem Repeat

Analysis

WiCell<sup>®</sup> info@wicell.org (888) 204-1782

Sample Date: N/A Receive Date: 11/27/17 Assay Date: 11/28/17 File Name: STR 171129 wmr Report Date: 11/30/17

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
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,
CSF1PO	6-15	<ul> <li>please, contact</li> <li>WiCell's Technical</li> </ul>
D16S539	5, 8-15	Support.
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	
<b>TH01</b>	4-9,9.3,10-11,13.3	
D3S1358	12-20	

<u>Results:</u> Based on the 13090-STR cells submitted by WiCell QA dated and received on 11/27/17, this sample (Label on Tube: 13090-STR) exactly matches the STR profile of the human stem cell line iPS(Foreskin)-1 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human iPS(Foreskin)-1 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 13090-STR sample submitted corresponds to the iPS(Foreskin)-1 stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells.

<u>Sensitivity</u>: 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 12/01/17	X WMR Dig	gitally Signed on	12/01/17
, BA TRIP Laboratory, Molecular	, Phi UWHC Molecular Diagna	D, Director / Co-Dire	

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 CORRECTED

SAMPLE #:	17111201
DATE RECEIVED:	16-Nov-17
TEST INITIATED:	20-Nov-17
TEST COMPLETED:	04-Dec-17

SAMPLE NAME / DESCRIPTION: iPS(Foreskin)-1-WB666667 13067 UCSD234i-SAD2-3-WB666668 13068 UCSD193i-106-1-WB57372 13069 UCSD178i-17-3-WB61149 13071 UCSD165i-97-1-WB64665 13072 WISC013i-SCID-DB66578 13073 WISC012i-SCA-DB66579 13074 UCSD067i-19-1-WB64878 13075 UCSD166i-98-1-WB59911 13076 UCSD210i-112-1-WB63447 13077 UCSD208i-111-1-WB58973 13079 UCSD160i-92-1-WB61150 13080 UCSD189i-28-1-WB60070 13081 UCSD190i-28-2-WB58714 13082 UCSD191i-13-1-WB65029 13083 UCSD196i-30-1-WB57099 13084 UCSD197i-30-2-WB54408 13085 UCSD202i-108-1-WB57850 13086 UCSD215i-113-1-WB59923 13087 STAN054i-149-2-WB666669 13088 UNIQUE IDENTIFIER: NA PRODUCT REGISTRATION: Human iPS Cells

TEST RESULTS:		# Positives	
	# Tested	(Growth)	- Control
	20	1	2 Negative

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	

REFERENCE:

Processed according to LAB-003: Sterility Test Procedure

## Native Product Sterility Report



METHOD VALIDATION / PD #: TEST METHODOLOGY: 000053 USP - Direct Transfer



COMMENTS:

Report modified to correct the Sample Name / Description and # Positives.

Sample labeled UCSD208i-111-1-WB58973 13079 was positive in TSB and FTG. Sample #17111201

**REVIEWED BY** 



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

Testing Performed by WiCell Lot Release Testing November 20, 2017 FORM SOP-QU-004.01 Version G Edition 02 Reported by: KR Reviewed by: JB BD Monolight 180

		Read	ing A	Α	Read	ling B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	<b>Comments/Suggestions</b>
1	iPS(Foreskin)-1-WB66667 13090	231	237	234	82	81	81.5	0.35	Negative	
2	Positive (+) Control	359	373	366	14265	14523	14394	39.33	Positive	
3	Negative (-) Control	618	647	632.5	84	81	82.5	0.13	Negative	

