

Thaw and Culture Details

Cell Line Name	UCSD079i-1-12						
WiCell Lot Number	WB58931						
Provider	University of California, San Diego – Dr. Kelly Frazer						
Banked By	WiCell						
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 4 wells of a 6 well plate.						
Culture Platform	Feeder Independent						
	Medium: mTeSR™1						
	Matrix: Matrigel®						
Protocol	WiCell Feeder Independent mTeSR™1 Protocol						
Passage Number	p19 These cells were cultured for 18 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 Vialed	04-February-2017						
Vial Label	UCSD079i-1-12 p19 WB58931						
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	Pass
Post-Thaw Viable Cell Recovery	WiCell	SOP-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	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.

- Illumina® HumanCoreExome BeadChip Array
- RNA-Seq
- Flow Cytometry (SSEA-4, Tra 1-81)
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGAEX)

©2017 WiCell Research Institute



Approval Date	Quality Assurance Approval
18-February-2017	10/20/2017 K RK Quality Assumance Signed by: Element Enk

©2017 WiCell Research Institute

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: Monday, October 02, 2017 Cell Line Gender: Female Cell Line: UCSD079i-1-12-WB58931 12865 Reason for Testing: lot release testing Passage#: 19 Date of Sample: 9/18/2017 WiCell CDM Investigator: Specimen: Human IPSC Results: 46,XX TO DO DO State and Cell: 29 Slide: G01 Electric All Slide Type: Karyotype 日常 Total Counted: 20 Total Analyzed: 8 Total Karyogrammed: 4 日日日 Band Resolution: 425 - 450

Interpretation:

20

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:	, 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.



Short Tandem Repeat Analysis

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

Sample Report: 12865-STR Sample Name on Tube: 12865-STR 79.0 ng/μL, (A260/280=1.80) Sample Type: Cells Cell Count: ~2 million cells **Requestor:** WiCell Research Institute Quality Department WiCell[®] info@wicell.org (888) 204-1782

Sample Date: N/A Receive Date: 09/25/17 Assay Date: 09/26/17 File Name: STR 170927 wmr Report Date: 10/06/17

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	please, contact
D16S539	5, 8-15	WiCell's Technical 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	
TH01	4-9,9.3,10-11,13.3	
D3S1358	12-20	

<u>Results:</u> Based on the 12865-STR cells submitted by WiCell QA dated and received on 09/25/17, this sample (Label on Tube: 12865-STR) defines the STR profile of the human stem cell line UCSD079i-1-12 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human UCSD079i-1-12 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 12865-STR sample submitted corresponds to the UCSD079i-1-12 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 10/06/17	X WMR Digitally Signed on 10/06/17
TRIP Laboratory, Molecular	, 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



17091273

21-Sep-17

25-Sep-17

09-Oct-17

SAMPLE #:

DATE RECEIVED:

TEST INITIATED:

TEST COMPLETED:

CORRECTED
REPORT

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

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 JFMT5-WB66596 12905 STAN008i-165-1-WB66600 12906 UCSD079i-1-12-WB58931 12907 NA Other: Human iPS cells

UNIQUE IDENTIFIER: PRODUCT REGISTRATION:

TEST RESULTS:	# Tested	# Positives (Growth)	- Control
a.	10	1 .	3 Negatives

TEST	SUMM	ARY:
------	------	------

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

REFERENCE:

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

USP - Direct Transfer

Native Product Sterility Report



COMMENTS:

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



REVIEWED BY

DATE ZINOUN

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 21, 2017 FORM SOP-QU-004.01 Version F 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	Comments/Suggestions
1	UCSD079i-1-12-WB58931 12865	203	221	212	91	81	86	0.41	Negative	
2	Positive (+) Control	425	430	427.5	25424	25612	25518	59.69	Positive	
3	Negative (-) Control	643	667	655	70	72	71	0.11	Negative	

