

Thaw and Culture Details

Cell Line Name	UCSD026i-9-1					
WiCell Lot Number	WB54736					
Provider	University of California, San Diego – Dr. Kelly Frazer					
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 [™] 1 Protocol					
Passage Number	hber p21 These cells were cultured for 20 passages prior to freeze and post reprogramming. WiCell adds - the passage number to best represent the overall passage number of the cells at thaw.					
Date Vialed	12-December-2016					
Vial Label	UCSD026i-9-1 p21 WB54736					
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	≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and	
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)

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Approval Date	Quality Assurance Approval
04-January-2017	4/21/2018 KG MG Quality Assurance Signed by Gay, Janna

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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: Monday, March 05, 2018 Cell Line: UCSD026i-9-1-WB54736 13498 Passage#: 21 Date of Sample: 2/27/2018 Specimen: Human IPS Results: 46,XY

2018 Cell Line Gender: Male 13498 Reason for Testing: lot release testing Investigator: , WiCell CDM Cell: 44 Slide: G03 Slide Type: Karyotype Total Counted: 20 Total Analyzed: 8 Total Karyogrammed: 4 Band Resolution: 500 - 550

Interpretation:

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:
D utor	••• <i>i</i> ,		

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: 13498-STR Sample Name on Tube: 13498-STR 92.8 ng/µL, (A260/280=1.84) Sample Type: Cells Cell Count: ~2 million cells **Requestor:** WiCell Research Institute Quality Department

Short Tandem Repeat

Analysis

Sample Date: N/A Receive Date: 03/05/18 Assay Date: 03/06/18 File Name: STR 180307 wmr

Report Date: 03/13/18

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
TPOX	6-13	been redacted to
D8S1179	7-18	protect donor
vWA	10-22	confidentiality. If
Amelogenin	Х,Ү	more information
Penta_D	2.2, 3.2, 5, 7-17	is required, please, contact
CSF1PO	6-15	WiCell's Technical
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	
TH01	4-9,9.3,10-11,13.3	
D3S1358	12-20	

<u>Results:</u> Based on the 13498-STR cells submitted by WiCell QA dated and received on 03/05/18, this sample (Label on Tube: 13498-STR) defines the STR profile of the human stem cell line UCSD026i-9-1 comprising 29 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human UCSD026i-9-1 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 13498-STR sample submitted corresponds to the UCSD026i-9-1 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 03/14/18	X WMR Digitally Signed on 03/14/18
BA	, PhD, Director / Co-Director
TRIP Laboratory, Molecular	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 #:17120390DATE RECEIVED:07-Dec-17TEST INITIATED:11-Dec-17TEST COMPLETED:26-Dec-17

SAMPLE NAME / DESCRIPTION: UCSD125i-7-2 WB66673 13110 UCSD174i-18-2 WB666672 13111 UCSD177i-17-2 WB666671 13112 WISC011i-inGFPpuro WB66670 13113 UCSD008i-44-1 WB66287 13114 UCSD006i-21-1 WB57101 13116 UCSD007i-21-2 WB54928 13117 UCSD013i-16-3 WB61874 13118 UCSD014i-21-3 WB55344 13119 UCSD022i-8-3 WB59011 13120 UCSD023i-8-4 WB58972 13121 UCSD024i-13-3 WB58691 13122 UCSD025i-13-4 WB63445 13123 UCSD026i-9-1 WB54736 13124 UCSD028i-9-3 WB54172 13125 UCSD029i-9-4 WB63527 13126 UCSD030i-23-2 WB58975 13127 UCSD031i-45-1 WB58276 13128 UCSD032i-41-1 WB64803 13129 UCSD085i-6-2 WB61664 13139 UNIQUE IDENTIFIER: NA

CORRECTED

REPORT

PRODUCT REGISTRATION: NA Human iPS Cells

TEST RESULTS:		# Positives		
	# Tested	(Growth)	- Control	
	20	0	2 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

REFERENCE:

METHOD VALIDATION / PD #:

Processed according to LAB-003: Sterility Test Procedure 000053

Native Product Sterility Report



TEST METHODOLOGY:

USP - Direct Transfer

COMMENTS: Report revised due to incorrect sample name/description.

REVIEWED BY

DATE 02

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 March 1, 2018 FORM SOP-QU-004.01 Version G Edition 02 Reported by: AP 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	UCSD026i-9-1-WB54736 13498	273	271	272	119	115	117	0.43	Negative	
2	Positive (+) Control	388	400	394	34112	34379	34246	86.92	Positive	
3	Negative (-) Control	706	732	719	101	92	96.5	0.13	Negative	

