

Thaw and Culture Details

Cell Line Name	UCSD074i-1-5
WiCell Lot Number	WB57577
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	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	16-January-2017
Vial Label	UCSD074i-1-5 p19 WB57577
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 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.

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

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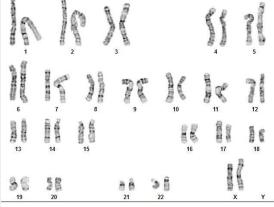
Approval Date	Quality Assurance Approval
07-February-2017	9/24/2018 XIG VIG Quality Assurance Signed by: Gay, Jenna

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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: Friday, June 29, 2018 Cell Line: UCSD074i-1-5-WB57577 13673 Passage#: 19 Date of Sample: 6/22/2018 Specimen: Human IPS Results: 46,XX



Cell Line Sex: Female Reason for Testing: lot release testing
Investigator: WiCell
Cell: 27
Slide: G02
Slide Type: Karyotype
Total Counted: 20
Total Analyzada 0

Total Analyzed: 8 Total Karyogrammed: 4 Band Resolution: 425 - 525

Interpretation:

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

Completed by: Reviewed and Interpreted by:

, PhD, FACMG

A signed copy of this report is available upon request.

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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 of this assay are for research use only. 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.



HISTOLOGY - IHC - MOLECULAR - IMAGING

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

Sample Report: 13673-STR Sample Name on Tube: 13673-STR 82.1 ng/μL, (A260/280=1.87) Sample Type: Cells Cell Count: ~2 million cells **Requestor:** WiCell Research Institute Quality Department

Short Tandem Repeat

Analysis

WiCell[®] info@wicell.org (888) 204-1782

Sample Date: N/A Receive Date: 07/02/18 Assay Date: 07/09/18 File Name: STR 1820710 wmr Report Date: 07/16/18

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,		
CSF1PO	6-15	please, contact 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 13673-STR cells submitted by WiCell QA dated and received on 07/02/18, this sample (Label on Tube: 13673-STR) defines the STR profile of the human stem cell line UCSD074i-1-5 comprising 28 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human UCSD074i-1-5 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 13673-STR sample submitted corresponds to the UCSD074i-1-5 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 07/16/18	X WMR	Digitally Signed on	07/16/18
, BA TRIP Laboratory Molecular	,	PhD, Director / Co-Direc enostics Laboratory / UV	

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



	SAMPLE #:	17100977
WiCell	DATE RECEIVED:	12-Oct-17
405 S Rosa Rd, Rm 101	TEST INITIATED:	13-Oct-17
Madison, WI 53719	TEST COMPLETED:	27-Oct-17
SAMPLE NAME / DESCRIPTION:	WC012i-CMT2A-1.3-WB66646 12956	
	UCSD107i-2-6-WB54783 12967	
	UCSD108i-2-7-WB57089 12968	
	UCSD112i-2-11-WB60391 12969	
	UCSD080i-1-13-WB63464 12970	
	UCSD071i-1-2-WB63465 12971	
	UCSD072i-1-3-WB61823 12972	
	UCSD073i-1-4-WB61904 12973	
	UCSD074i-1-5-WB57577 12974	
	UCSD075i-1-6-WB63468 12975	
UNIQUE IDENTIFIER:	NA	
PRODUCT REGISTRATION:	Other: Human iPS cells	

TEST RESULTS:	# Tested	# Positives (Growth)	- Control	
	10	0	2 Negatives	

TEST	SUN	MMA	ARY:
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RY:	# 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

COMMENTS: NA REVIEWED BY 10 P

DATE 300CTIT

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 June 22, 2018 FORM SOP-QU-004.01 Version G Edition 02 Reported by: AP Reviewed by: JB BD Monolight 180

		Read	ing A	Α	Read	ing B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	UCSD074i-1-5-WB57577 13673	220	222	221	82	78	80	0.36	Negative	
2	Positive (+) Control	490	497	493.5	24277	24371	24324	49.29	Positive	
3	Negative (-) Control	662	667	664.5	79	75	77	0.12	Negative	

