

Thaw and Culture Details

Cell Line Name	MCW029i-A2757			
WiCell Lot Number	WB67282			
Provider	Medical College of Wisconsin – Laboratory of Dr. Ulrich Broeckel			
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: mTeSR1™			
	Matrix: Matrigel®			
Protocol	WiCell Feeder Independent mTeSR1 Protocol			
Passage Number	ge Number p16 These cells were cultured for 15 passages prior to freeze and colony selection. WiCell adds +1 to t passage number at freeze to best represent the overall passage number of the cells at thaw. Plater cells at thaw should be labeled passage 16.			
Date Vialed 11-August-2019				
Vial Label MCW029i-A2757 p16 WB67282				
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 prior to passage, ≤ 30% Differentiation prior to passage, and recoverable attachment after passage 	Pass
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Defines STR profile	Pass
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-CH-044	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.

- Tra1-60 marker expression
- mRNA expression by qPCR
- Infinium[®] Expanded Multi-Ethnic Genotyping Array (MEGA^{EX})

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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.



Approval Date	Quality Assurance Approval
12-May-2018	9/16/2019 XG XG Cuality Assurance Signed by Gay, Jenna

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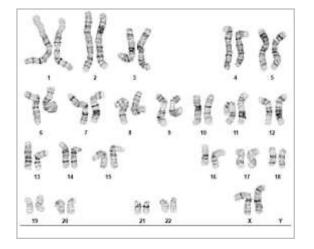
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Date Reported: Tuesday, September 3, 2019 Cell Line: MCW029i-A2757-WB67282 14984 Passage#: 16 Date of Sample: 8/26/2019 Specimen: Human IPSC Results: 46,XX Cell Line Sex: Female Reason for Testing: lot release testing

Investigator:

WiCell



Cell: 15
Slide: G01
Slide Type: Karyotype
Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 425 - 475

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

 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 or effect.

TRIPath

HISTOLOGY - IHC - MOLECULAR - IMAGING

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular) https://research.pathology.wisc.edu/trip-home/ (608) 265-9168

Sample Report:

14984-STR Sample Name on Tube: 14984-STR 69.4 ng/μL, (A260/280=1.76) Sample Type: Cells Cell Count: ~2 million cells

Short Tandem Repeat Analysis

WiCell Research Institute

Quality Assurance Department

Requestor:



characterization@wicell.org (608) 316-4145

Receive Date: 09/03/19 Report Sent: 09/09/19 Assay Date: 09/03/19 File Name: STR 190904 wmr Report Date: 09/09/19

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 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 14984-STR cells submitted by WiCell QA dated and received on 09/03/19, this sample (Label on Tube: 14984-STR) defines the STR profile of the human cell line MCW029i-A2757 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human MCW029i-A2757 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 14984-STR sample submitted corresponds to the MCW029i-A2757cell line and was not contaminated with any other human 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 cell lines is ~2-5%.

X RMB	Digitally Signed on 09/09/19	X WMR	Digitally Signed on 09/09/19
TRIP La	, BA boratory, Molecular	UWHC Mole	, PhD, Director / Co-Director ecular 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: https://research.pathology.wisc.edu/acknowledging-trip/ 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 https://www.wicell.org/media.acux/ca76d97c-862a-43f3-b02a-ab2d1e619100. 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.

Native Product Sterility Report



	SAMPLE #:	19081786
WiCell	DATE RECEIVED:	22-Aug-19
504 S Rosa Road, Rm 101	TEST INITIATED:	28-Aug-19
Madison, WI 53719	TEST COMPLETED:	11-Sep-19
SAMPLE NAME / DESCRIPTION:	PACS1001i-GM27160 DB67267 14974	
	MCW029i-A2757 WB67282 14975	
	WC048i-17097-02-06 WB67278 14976	
	WC049i-17097-02-07 WB67280 14977	
	STAN331i-952C3 DB44191 14978	
	STAN332i-952C5 DB44194 14979	
	STAN250i-622C2 DB35669 14980	
	STAN252i-637C2 DB44374 14981	
	STAN156i-334C1 DB35697 14982	
	STAN157i-334C2 DB35700 14983	
UNIQUE IDENTIFIER:	NA	

TEST RESULTS:	# Tested	# Positives (Growth)	- Control		
	10	0	2 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 accord	ding to LAB-003: St	erility Test Procedu	ıre
PD #:		000053			
TEST METHODOLO	GY:	USP - Direct Trar	nsfer		
COMMENTS:	NA				

REVIEWED BY

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DATE 125ep19

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. Results applied to samples as received.



Mycoplasma Assay Report

PCR-based assay performed by WiCell Lot Release Testing - 14984 28Aug19

#	Sample Name	Result	Comments/Suggestions
1	MCW029i-A2757-WB67282 14984	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma
2	Positive (+) Control	Positive	
3	Negative (-) Control	Negative	

Reported by: Molly Miles, Cell Culture Specialist Reviewed by: Katie Remondini, Cell Culture Specialist

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A gel image is available upon request.