

Thaw and Culture Details

Cell Line Name	MCW111i-40002422		
WiCell Lot Number	WB67223		
Parent Material	MCW111i-40002422-DB66419		
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: TeSR™-E8™		
	Matrix: Matrigel®		
Protocol	WiCell Feeder Independent E8 Medium Protocol		
Passage Number	p16 These cells were cultured for 15 passages prior to freeze and post colony selection. WiCell adds +1 to the passage number at freeze to best represent the overall passage number of the cells at thaw. Plated cells at thaw should be labeled passage 16.		
Date Vialed	11-June-2019		
Vial Label	MCW111i-40002422 p16 WB67223		
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 of deposited cell line	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		
16-January-2020	1/16/2020 XG XG Quality Assurance Signed by Gay, Anna		

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Date Reported: Wednesday, December 18, 2019 Cell Line Sex: Female Cell Line: MCW111i-40002422-WB67223 Reason for Testing: Lot Release 15155 Passage#: 16 Date of Sample: 12/11/2019 Investigator: WiCell Specimen: Human IPSC Results: 46,XX **Cell: 27** Slide: G03 Slide Type: Karyotype Total Counted: 20 Total Analyzed: 8 큪 Total Karyogrammed: 4 Circles of the local division of the local d Band Resolution: 450 - 525 莒居 × 륑 20

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:		, Ph.D.	
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.

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:

15155-STR Sample Name on Tube: 15155-STR 95.8 ng/μL, (A260/280=1.79) 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: 12/19/19 Report Sent: 01/09/20 Assay Date: 01/07/20 File Name: STR 1200108 wmr Report Date: 01/09/20

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 <u>WiCell's Technical</u>
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 15155-STR cells submitted by WiCell QA dated and received on 12/19/19, this sample (Label on Tube: 15155-STR) defines the STR profile of the human cell line MCW111i-40002422 comprising 28 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human MCW111i-40002422 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 15155-STR sample submitted corresponds to the MCW111i-40002422 cell 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	01/09/20	X WMR	Digitally Signed on	01/09/20
	TRIP La	, BA boratory, Molecular		UWHC Mole	, PhD, Director / Co-Director cular Diagnostics Laboratory / UWSM	

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



WiCell 504 S Rosa Road, Rm 101 Madison, WI 53719		SAMPLE #:1906180DATE RECEIVED:20-Jun-1TEST INITIATED:25-Jun-2TEST COMPLETED:09-Jul-1	19 19
SAMPLE NAME / DESCRIPTION:		DB44252 14847	
	NA		

UNIQUE IDENTIFIER:

NA

TEST RESULTS:	# Tested	# Positives (Growth)	- Control	
	19	0	2 Negative	
TEST SUMMARY:				· · · · · · · · · · · · · · · · · · ·

TEST SUMMARY:	# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)	
	19	TSB	40	20-25	14	
	19	FTG	40	30-35	14	
REFERENCE:		Processed accord	ding to LAB-003: St	terility Test Procedu	Ire	
PD #:		000053				
TEST METHODOLOGY:		USP - Direct Transfer				





COMMENTS: Sample #19061805

Reported as per packing slip.

REVIEWED BY

DATE 10 TUL 19

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.

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Mycoplasma Assay Report

PCR-based assay performed by WiCell WiCell 13Dec19

Sample Name	Result	Comments/Suggestions
UCSD179i-27-1-WB67348 15202 (79496)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MIN20i-34363.A-WB67349 15203 (79497)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
JHU188i-WB67356 15204 (79498)		Band was not seen at 270bp, indicating the absence of mycoplasma.
MCW111i-40002422-WB67223 15155 (79499)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Reported by: Hannah Rueth, Assistant Research Specialist Reviewed by: Amber Kuhn, Assistant Research Specialist

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A gel image is available upon request.