

Thaw and Culture Details

Cell Line Name	MCW042i-40001401			
WiCell Lot Number	WB67385			
Parent Material	MCW042i-40001401-DB66347			
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	p15 These cells were cultured for 14 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 15.			
Date Vialed	13-January-2020			
Vial Label	MCW042i-40001401 p15 WB67385			
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

©2020 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.



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})

Approval Date	Quality Assurance Approval
12-March-2020	3/12/2020 XIS MG Quality Assurance Signed by: Gay, Jenna

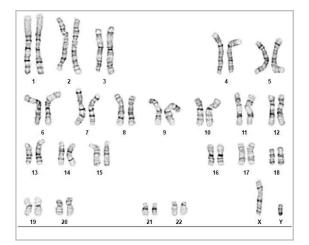
©2020 WiCell Research Institute



Chromosome Analysis Report: 080265

Date Reported: Friday, February 14, 2020 Cell Line: MCW042i-40001401-WB67385 Passage#: 16 Date of Sample: 2/6/2020 Specimen: Human IPSC Results: 46,XY Cell Line Sex: Male Reason for Testing: LOT_RELEASE

Investigator: WiCell CDM, WiCell



Cell: 3
Slide: G01
Slide Type: Karyotype
Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 450 - 550

Interpretation:

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

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.



Short Tandem Repeat Analysis



characterization@wicell.org (608) 316-4145

Receive Date: 02/11/20 **Report Sent:** 02/14/20 **Assay Date:** 02/11/20 **File Name:** STR 200212 wmr

Report Date: 02/17/20

STR Locus STR Genotype Repeat # **STR Genotype** 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. Identifying FGA 44.2,45.2,46.2 information has TPOX 6-13 been redacted to D8S1179 7-18 protect donor confidentiality. If vWA 10-22 more information X,Y Amelogenin is reauired. 2.2, 3.2, 5, 7-17 Penta D please, contact 6-15 CSF1PO 5, 8-15 D16S539 6-14 D7S820 D13S317 7-15 7-16 D5S818 5-24 Penta E 8-10, 10.2, 11-13, 13.2, 14-27 D18S51 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 D21S11 4-9,9.3,10-11,13.3 **TH01** D3S1358 12-20

<u>Results:</u> Based on the MCW042i-40001401-WB67385 p.16 D01 (80265) DNA submitted by WiCell Characterization Department dated and received on 02/10/20, this sample (Label on Tube: MCW042i-40001401-WB67385 p.16 D01 (80265)) defines the STR profile of the human cell line MCW042i-40001401 comprising 28 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human MCW042i-40001401cell 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 MCW042i-40001401-WB67385 p.16 D01 (80265) sample submitted corresponds to the MCW042i-40001401 cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells.

Sensitivity: Sensitivity limits for detection of STR polymorphisms unique to either this or other human cell lines is ~2-5%.

X RMB Digitally Signed on 02/17/20	X WMR Digitally Signed on 02/17/20
, BA TRIP Laboratory, Molecular	, PhD, Director / Co-Director UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory
• • • • • • • •	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.

Sample Report:

MCW042i-40001401-WB67385 p.16 D01 (80265) Wi Sample Name on Tube: MCW042i-40001401-WB67385 p.16 D01 (80265) 26.7 ng/μL, (A260/280=1.58) Sample Type: DNA Cell Count: N/A

Requestor:

WiCell Research Institute Characterization Department

HISTOLOGY - IHC - MOLECULAR - IMAGING

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

Native Product Sterility Report



WiCell 504 S Rosa Road, Rm 10	1			SAMPLE #: DATE RECEIVED: TEST INITIATED:	20011487 23-Jan-20 29-Jan-20
Madison, WI 53719			TE:	ST COMPLETED:	12-Feb-20
SAMPLE NAME / DES	SCRIPTION:	WC064i-247-1-2-22 PENN022i-89-1 UCSD128i-7-5	5 WB67382 152 WB67383 1523 8 WB67386 152	36 7 38 39	
UNIQUE IDENTIFIER	:	NA			
TEST RESULTS:	# Tested	# Positives (Growth)	- Control		

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
	ang gan ang ang ang ang ang ang ang ang			· · · · · · · · · · · · · · · · · · ·	

REFERENCE: PD #:

TEST METHODOLOGY:

10

Processed according to LAB-003: Sterility Test Procedure 000053 **USP** - Direct Transfer

2 Negatives

COMMENTS:

NA **REVIEWED BY**

0

DATE 14FEB2020

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

FORM SOP-CH-048.01 Version B Edition 01

PCR-based assay performed by WiCell WiCell

03Feb20

Sample Name	Result	Comments/Suggestions
MCW042i-40001401-WB67385 15254 (80071)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
WC070i-335-1-2-30-WB67391 15265 (80072)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

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

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.

A gel image is available upon request.