

Thaw and Culture Details

Cell Line Name	MCW012i-A7156
WiCell Lot Number	WB67051
Parent Material	MCW012i-A7156-DB66317
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: mTeSR™1
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR™1 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	10-March-2019
Vial Label	MCW012i-A7156 p16 WB67051
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

100411910111104111911					
Test Description	Test Provider	Test Method	Test Specification	Result	
	WiCell	SOP-CH-003	Expected karyotype	See Report	
Karyotype by G-banding	Results: 47,XX, +i(12)(p10)[5)/46,XX[15) Interpretation: This is an abnormal karyotype. An isochromosome of the short (p) arm of chromosome 12 is present in five of twenty cells examined. Gain of chromosome 12p is recurre acquired in cultures of this cell type. No other clonal abnormalities were detected at the stated level of resolution.			p is recurrently	
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 (MEGAEX)

Approval Date	Quality Assurance Approval
04-June-2020	JKG JKG Quality Assurance Signed by Gay, Jenna



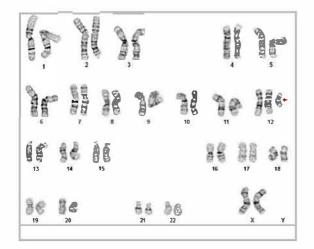
Chromosome Analysis Report: 075761

Date Reported: Tuesday, April 02, 2019 Cell Line: MCW012i-A7156-WB67051 14443

Passage#: 16

Date of Sample: 3/22/2019 Specimen: Human IPS

Results: 47,XX,+i(12)(p10)[5]/46,XX[15]



Cell Line Sex: Female

Reason for Testing: lot release testing

Investigator: . WiCell

> Cell: 35 Slide: G02

Slide Type: Karyotype

Total Counted: 20 Total Analyzed: 8

Total Karyogrammed: 4 Band Resolution: 375 - 475

Interpretation:

This is an abnormal karyotype. An isochromosome of the short (p) arm of chromosome 12 is present in five of twenty cells examined. Gain of chromosome 12p is recurrently acquired in cultures of this cell type. No other clonal abnormalities were detected at the stated band level of resolution.

Reviewed and Interp	preted by:	PhD, FACMG	
Date:	Sent Bv:	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.

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Short Tandem Repeat Analysis HISTOLOGY - IHC - MOLECULAR - IMAGING



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

characterization@wicell.org (608) 316-4145

Sample Report: 14443-STR

Sample Name on Tube: 14443-STR

 $100.5 \text{ ng/\mu L}, (A260/280=1.91)$

Sample Type: Cells

Cell Count: ~2 million cells

Requestor: WiCell Research Institute Quality Assurance Department Receive Date: 03/25/19 **Report Sent: 04/01/19** Assay Date: 03/28/19

File Name: STR 190329 wmr

Report Date: 03/29/19

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 Technic
D16S539	5, 8-15	Support.
D7S820	6-14	<u> </u>
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	

Results: Based on the 14443-STR cells submitted by WiCell QA dated and received on 03/25/19, this sample (Label on Tube: 14443-STR) defines the STR profile of the human stem cell line MCW012i-A7156 comprising 28 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human MCW012i-A7156 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 14443-STR sample submitted corresponds to the MCW012i-A7156 stem 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 stem cell lines is $\sim 2-5\%$.

X RMB	Digitally Signed on 04/01/19	X WMR	Digitally Signed on	04/01/19
TRIP La	, BA boratory, Molecular	UWHC Mole	, PhD, Director / Co-Director Diagnostics Laboratory / U	

Native Product Sterility Report



SAMPLE #:

19032457

WiCell

DATE RECEIVED:

28-Mar-19

504 S Rosa Road, Rm 101

TEST INITIATED:

01-Apr-19

Madison, WI 53719

TEST COMPLETED:

15-Apr-19

SAMPLE NAME / DESCRIPTION:

WA07 WB67046 14469

MCW012i-A7156 WB67051 14470 MCW014i-50000395 WB67052 14471 MCW032i-A7214 WB67053 14472 MCW053i-U2213 WB67054 14473 MCW043i-U2326 WB67056 14474

MCW045i-U2033 WB67057 14475 WC042e-H1dCGG0-B7 WB67063 14476 WC043e-H13dCGG0-23 WB67069 14477

WC044i-IVF15-36 WB67062 14478

UNIQUE IDENTIFIER:

NA

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	1	2 Negatives

TEST SUMMARY:

# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
10	TSB	40	20-25	14
10	TSB	40	30-35	14

REFERENCE:

Processed according to LAB-003: Sterility Test Procedure

PD #:

000053

TEST METHODOLOGY:

USP - Direct Transfer

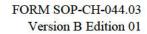
COMMENTS:

Sample labeled as WC044i-IVF15-36 WB67062 14478 was positive

REVIEWED BY _____

DATE 16 APRIG

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.



WiCell

Mycoplasma Assay Report PCR-based assay performed by WiCell

PCR-based assay performed by WiCell
Lot Release Testing
25Mar19

#	# Sa	ample Name	Result	Comments/Suggestions
	1 M	ICW012i-A7156-WB67051 14443	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
- 2	2 Pc	ositive (+) Control	Positive	
	3 Ne	legative (-) Control	Negative	

Reported by:	, Cell Culture Specialist			
Reviewed by:	, Cell Culture Specialist			
Date:	Sent By:	Sent To		

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A gel image is available upon request.