

### **Thaw and Culture Details**

Cell Line Name	MCW032i-A7214			
WiCell Lot Number	WB67053			
Parent Material	MCW032i-A7214-DB66337			
Provider	Medical College of Wisconsin – Laboratory of Dr. Ulrich Broeckel			
Banked By	WiCell			
Thaw and Culture Recommendations	WiCell or The Provider recommends thawing 1 vial into 3 wells of a 6 well plate.			
Culture Platform	Feeder Independent			
	Medium: TeSR <sup>™</sup> -E8 <sup>™</sup>			
	Matrix: Matrigel®			
Protocol	WiCell Feeder Independent E8 Medium Protocol			
Passage Number p17   These cells were cultured for 16 passages prior to freeze and post colony picking. WiCell the passage number at freeze to best represent what the overall passage number of the collected cells at thaw should be labeled passage 17.				
Date Vialed 09-March-2019				
Vial Label MCW032i-A7214 p17 WB67053				
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-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<sup>®</sup> Expanded Multi-Ethnic Genotyping Array (MEGA<sup>EX</sup>)

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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		
25-April-2019	4/25/2019 XIG Quality Assurance Signed by Gay, Jenna		

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Date Reported: Wednesday, April 03, 2019 Cell Line Sex: Female Cell Line: MCW032i-A7214-WB67053 14440 Reason for Testing: Lot release Passage#: 17 Date of Sample: 3/22/2019 Investigator: WiCell Specimen: Human IPS Results: 46,XX **Cell: 42** Slide: G03 Slide Type: Karyotype Total Counted: 20 볋 Total Analyzed: 8 Total Karyogrammed: 4 Band Resolution: 400 - 450 「「「「「「」」 ₿@

#### Interpretation:

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

Completed by: Reviewed and Interpreted by:	, CG(ASCP) 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 are null and void and of no legal force or effect.

# **TRIP**ath

#### HISTOLOGY - IHC - MOLECULAR - IMAGING

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

#### Sample Report:

14440-STR Sample Name on Tube: 14440-STR 57.2 ng/μL, (A260/280=1.68) Sample Type: Cells Cell Count: ~2 million cells

## Short Tandem Repeat Analysis



characterization@wicell.org (608) 316-4145

Receive Date: 04/01/19 Report Sent: 04/08/19 Assay Date: 04/02/19 File Name: STR 190403 wmr Report Date: 04/04/19

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	Х,Ү	more information
Penta_D	2.2, 3.2, 5, 7-17	is required, please, contact
CSF1PO	6-15	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 14440-STR cells submitted by WiCell QA dated and received on 04/01/19, this sample (Label on Tube: 14440-STR) defines the STR profile of the human stem cell line MCW032i-A7214 comprising 26 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human MCW032i-A7214 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 14440-STR sample submitted corresponds to the MCW032i-A7214 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 04/08/19	X WMR	Digitally Signed on 04/08/19
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: http://www.pathology.wisc.edu/research/trip/acknowledging 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.

**Requestor:** WiCell Research Institute Quality Assurance Department

## Native Product Sterility Report



				SAMPLE #:	19032457
WiCell			DA	TE RECEIVED:	28-Mar-19
504 S Rosa Road, Rm 10	)1		т	EST INITIATED:	01-Apr-19
Madison, WI 53719			TES	COMPLETED:	15-Apr-19
SAMPLE NAME / DES	SCRIPTION:	WA07 WB67046 14	469		
		MCW012i-A7156 W	/B67051 14470		
		MCW014i-5000039	5 WB67052 14471		
		MCW032i-A7214 W	/B67053 14472		
		MCW053i-U2213 W	/B67054 14473		
		MCW043i-U2326 W	/B67056 14474		
		MCW045i-U2033 W	/B67057 14475		
		WC042e-H1dCGG0-	B7 WB67063 14476		
		WC043e-H13dCGG	D-23 WB67069 14477		
		WC044i-IVF15-36 W	/B67062 14478		
UNIQUE IDENTIFIER	1:	NA			
TEST RESULTS:		# Positives			
	# Tested	(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 accord	ling to LAB-003: St	erility Test Procedu	ıre
PD #:		000053			
TEST METHODOLOGY: USP - Direct Transfer					

COMMENTS:

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

**REVIEWED BY** 

DATE 16 APRIL

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.

**STERIS** Laboratories 9303 West Broadway Ave Brooklyn Park, MN 55445



# Mycoplasma Assay Report PCR-based assay performed by WiCell

Lot Release Testing 25Mar19

#	Sample Name	Result	Comments/Suggestions
1	MCW032i-A7214-WB67053 14440	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
2	Positive (+) Control	Positive	
3	Negative (-) Control	Negative	

#### Reported by: Katie Remondini, Cell Culture Specialist **Reviewed by: Sondra Minter, Cell Culture Specialist** \_\_\_\_\_ Sent By:\_\_\_\_ Sent To\_\_\_\_\_

Date:

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A gel image is available upon request.