

Thaw and Culture Details

Cell Line Name	MCW105i-U2130		
WiCell Lot Number	WB67207		
Parent Material	MCW105i-U2130-DB66413		
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 [™] -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	26-May-2019		
Vial Label	MCW105i-U2130 p16 WB67207		
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
	WiCell	SOP-CH-003	Expected karyotype	See Report
Karyotype by G-banding	Results: 46,XY,t(4;13)(q33;q14)[18]/46,XY[1] Nonclonal findings: 48,XY,+i(1)(q10)x2,t(4;13)(q33;q14) <i>Interpretation:</i> This is an abnormal karyotype. An apparently balanced translocation between the long (q) arm of chromosome 4 and the long arm of chromosome 13 is present in nineteen of twenty cells examined. No other clonal abnormalities were detected at the stated band level of resolution. There is a nonclonal finding, listed above, which contains chromosomal aberrations (gain of chromosome 1q) recurrently acquired in pluripotent stem cell cultures. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.			
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

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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.



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})

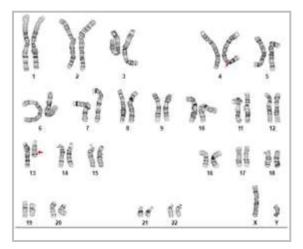
Approval Date	Quality Assurance Approval	
04-June-2020	644/0020 XIG Quality Assurance Signed by: Gay, Jenna	

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Date Reported	l: Thursday, November 21, 2019	Cell Line Sex: Male	
Cell Line: M	CW105i-U2130-WB67207 15133	Reason for Testing: Lot release tes	sting
Passage#: 16			
Date of Samp	le: 11/15/2019	Investigator: WiCell	
Specimen:	Human IPSC		
Results: 46,X	Y,t(4;13)(q33;q14)[18]/46,XY[1]		

Nonclonal findings: 48,XY,+i(1)(q10)x2,t(4;13)(q33;q14)

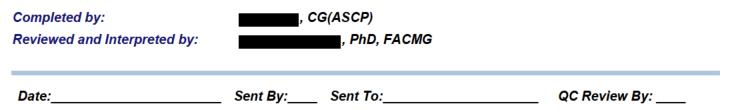


Cell: 27 Slide: G04 Slide Type: Karyotype Total Counted: 20 Total Analyzed: 8 Total Karyogrammed: 5 Band Resolution: 500 - 550

Interpretation:

This is an abnormal karyotype. An apparently balanced translocation between the long (q) arm of chromosome 4 and the long arm of chromosome 13 is present in nineteen of twenty cells examined. No other clonal abnormalities were detected at the stated band level of resolution.

There is a nonclonal finding, listed above, which contains chromosomal aberrations (gain of chromosome 1q) recurrently acquired in pluripotent stem cell cultures. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.



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

WiCell Research Institute

Quality Assurance Department

Requestor:



characterization@wicell.org (608) 316-4145

Receive Date: 11/21/19 Report Sent: 12/06/19 Assay Date: 12/03/19 File Name: STR 191204 wmr Report Date: 12/06/19

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

Sample Report: 15133-STR Sample Name on Tube: 15133-STR 33.3 ng/μL, (A260/280=1.79) Sample Type: Cells Cell Count: ~2 million cells

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
D168539	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 15133-STR cells submitted by WiCell QA dated and received on 11/21/19, this sample (Label on Tube: 15133-STR) defines the STR profile of the human cell line MCW105i-U2130 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human MCW105i-U2130 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 15133-STR sample submitted corresponds to the MCW105i-U2130 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 RM	Digitally Signed on 12/06/19	X WMR	Digitally Signed on 12/06/19
BA TRIP Laboratory, Molecular		UWHC Mole	, PhD, Director / Co-Director cular 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



19060913

12-Jun-19

14-Jun-19

28-Jun-19

	SAMPLE #:
WiCell	DATE RECEIVED:
504 S Rosa Road, Rm 101	TEST INITIATED:
Madison, WI 53719	TEST COMPLETED:

SAMPLE NAME / DESCRIPTION:	STAN204i-448C1 WB67189 14791
	MCW013i-A2767 WB67191 14792
	JHU242i DB37058 14793
	MCW085i-40002118 WB67193 14794
	MCW081i-U7128 WB67194 14795
	STAN043i-124-1 WB67196 14796
	STAN038i-118-2 WB67197 14797
	MCW007i-U2456 WB67198 14798
	MCW096i-40000169 WB67199 14799
	MCW074i-40002460 WB67203 14800
	MCW110i-U2170 WB67204 14801
	STAN044i-124-2 WB67206 14802
	MCW105i-U2130 WB67207 14803
	MCW103i-40000237 WB67208 14804
	MCW101i-40001005 WB67209 14805
	hIPSC-Di21-c2-4-4 WB67210 14806
	WA07 WB67212 14807
	WA07 WB67213 14808
	MCW021i-50001743 WB67214 14809
	hIPSC-Di21-c2-4-3 WB67215 14810
UNIQUE IDENTIFIER:	NA

UNIQUE IDENTIFIER:

TEST RESULTS:	# Tested	# Positives (Growth)	- Control
	20	0	2 Negatives

TEST	SUMMARY:	
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TEST SUMMARY:	# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
	20	TSB	40	20-25	14
	20	FTG	40	30-35	14
REFERENCE: PD #:		Processed accord 000053	ling to LAB-003: St	erility Test Procedu	ire

TEST METHODOLOGY:

USP - Direct Transfer

Native Product Sterility Report



COMMENTS:

NA

REVIEWED BY

DATE 28JUNIA

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.

N



Mycoplasma Assay Report

PCR-based assay performed by WiCell WiCell 18Nov19

Sample Name	Result	Comments/Suggestions
STAN140i-243C1-WB67329 15131 (79086)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
JHU050i-WB67328 15138 (79087)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MIN13i-33362.D-WB67326 15130 (79088)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MCW092i-U2390-WB67175 15113 (79089)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MCW104i-U2175-WB67231 15132 (79090)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MCW094i-U7120-WB67177 15112 (79114)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MCW105i-U2130-WB67207 15133 (79115)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Reported by: Assistant Research Specialist Reviewed by: Assistant Research Specialist

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A gel image is available upon request.