Thaw and Culture Details

Cell Line Name	**MCW100i-U2341**
WiCell Lot Number	**WB66575**
Provider	Medical College of Wisconsin – Laboratory of Dr. Ulrich Broeckel
Banked By	WiCell
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 2 wells of a 6 well plate.
Culture Platform	Feeder Independent
	Medium: TeSR™-E8™
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent E8 Medium Protocol
Passage Number	p14 These cells were cultured for 13 passages prior to freeze and post colony picking. WiCell adds +1 to the passage number at freeze to best represent what the overall passage number of the cells at thaw. Plated cells at thaw should be labeled passage 14.
Date Vialed	02-September-2017
Vial Label	MCW100i-U2341 p14 WB66575
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
	Results: 46,XX,i(20)(q10)[2]/46,XX[26] Nonclonal Findings: 47,XX,+12 ***Interpretation:*** This is an abnormal karyotype. There is an isochromosome of the long (q) arm of chromosome 20 in two of twenty-nine cells examined. This imbalance results in trisomy for 20q and monosomy for 20p. Gain of chromosome 20q is a recurrent acquired abnormality in cultures of this cell type. No other clonal abnormalities were detected at the stated band level of resolution. There is a pericentric inversion of chromosome 10 (inv(10)(p11.2q21.2)) in all cells examined. This inversion has been reported as a normal population variant. There is a nonclonal finding, listed above, which contains a chromosomal aberration (trisomy 12) recurrently acquired in cultures of this cell type. 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-QU-004	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})

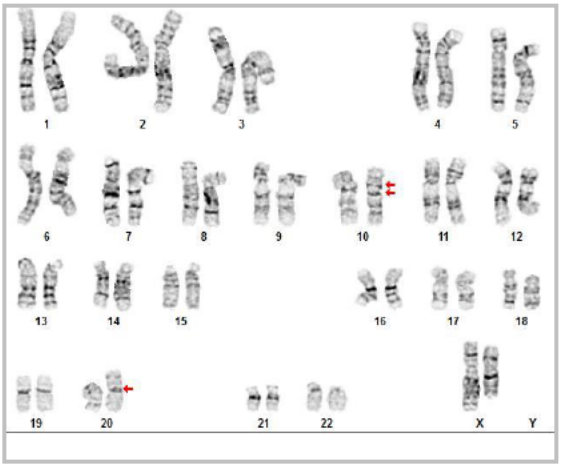
Approval Date	Quality Assurance Approval
14-May-2018	6/4/2020 X JKG JKG Quality Assurance Signed by: Gay, Jenna

Chromosome Analysis Report: 074380

Date Reported: Wednesday, January 02, 2019
Cell Line: MCW100i-U2341-WB66575 14192
Passage#: 14
Date of Sample: 12/19/2018
Specimen: Human IPS
Results: 46,XX,i(20)(q10)[2]/46,XX[26]

Nonclonal Findings: 47,XX,+12

Cell Line Sex: Female
Reason for Testing: lot release testing
Investigator: [redacted], WiCell



Cell: 26
Slide: G01
Slide Type: Karyotype

Total Counted: 29
Total Analyzed: 10
Total Karyogrammed: 6
Band Resolution: 400 - 525

Interpretation:

This is an abnormal karyotype. There is an isochromosome of the long (q) arm of chromosome 20 in two of twenty-nine cells examined. This imbalance results in trisomy for 20q and monosomy for 20p. Gain of chromosome 20q is a recurrent acquired abnormality in cultures of this cell type. No other clonal abnormalities were detected at the stated band level of resolution. There is a pericentric inversion of chromosome 10 (inv(10)(p11.2q21.2)) in all cells examined. This inversion has been reported as a normal population variant.

There is a nonclonal finding, listed above, which contains a chromosomal aberration (trisomy 12) recurrently acquired in cultures of this cell type. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.

Completed by: [redacted] CG(ASCP)
Reviewed and Interpreted by: [redacted], 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".

Short Tandem Repeat Analysis

TRIPath
HISTOLOGY - IHC - MOLECULAR - IMAGING

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

WiCell
Your Lab Partner

characterization@wicell.org
(608) 316-4145

Sample Report:
14192-STR
Sample Name on Tube: 14192-STR
73.7 ng/µL, (A260/280=1.86)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:
WiCell Research Institute
Quality Assurance Department

Receive Date: 01/02/19
Report Sent: 01/07/19
Assay Date: 01/02/19
File Name: STR 190103 revised wmr
Report Date: 01/07/19

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 been redacted to protect donor confidentiality. If more information is required, please, contact WiCell's Technical Support.
TPOX	6-13	
D8S1179	7-18	
vWA	10-22	
Amelogenin	X,Y	
Penta_D	2.2, 3.2, 5, 7-17	
CSF1PO	6-15	
D16S539	5, 8-15	
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	

Results: **Based on the 14192-STR cells submitted by WiCell QA dated and received on 01/02/19, this sample (Label on Tube: 14192-STR) defines the STR profile of the human stem cell line MCW100i-U2341 comprising 26 allelic polymorphisms across the 15 STR loci analyzed.**

Interpretation: **No STR polymorphisms other than those corresponding to the human MCW100i-U2341 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 14192-STR sample submitted corresponds to the MCW100i-U2341 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 ~2-5%.**

X *RMB* **Digitally Signed on 01/07/19**

[redacted], *BA*
TRIP Laboratory, Molecular

X *WMR* **Digitally Signed on 01/07/19**

[redacted], *PhD, Director / Co-Director*
UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

Native Product Sterility Report

STERIS

WiCell
504 S Rosa Rd, Rm 101
Madison, WI 53719

CORRECTED REPORT

SAMPLE #:	17090875
DATE RECEIVED:	14-Sep-17
TEST INITIATED:	18-Sep-17
TEST COMPLETED:	02-Oct-17

SAMPLE NAME / DESCRIPTION: MCW003i-40001883-WB66553_12835, MCW047i-U2234-WB66549_12836, MCW071i-U2177-WB66552_12837, MCW086i-40000176-WB66545_12838, MCW090i-40000374-WB66557_12839, MCW091i-U2202-WB66554_12840, MCW097i-400001654-WB66548_12841, MCW112i-40000893-WB66551_12842, MCW116i-40001890-WB66550_12843, MCW073i-40000527-WB66570_12844, MCW060i-U2183-WB66559_12845, JFHZ4-WB66573_12846, JFHZ5-WB66587_12847, JFHZ6-WB66583_12848, JFMD6-WB66581_12849, JFNY2-WB66584_12850, JFRBi5-WB66569_12851, JFWT2-WB66586_12852, JFWT4-WB66582_12853, UCSD239i-APP2-1-WB66585_12854, MCW100i-U2341-WB66575_12881, MCW114i-U2144-WB66566_12882, iPS(IMR90)-2-WB66588_12883, UCSD035i-4-4-WB62259_12884, UCSD064i-20-2-WB63303_12885, UCSD143i-87-1-WB57685_12886, UCSD161i-93-1-WB54536_12887, UCSD199i-107-1-WB59910_12888, UCSD209i-24-1-WB57661_12889, UCSD081i-1-14-WB61903_12890

UNIQUE IDENTIFIER: NA

PRODUCT REGISTRATION: Other: Human iPS Cells

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
30	0	2 Negatives

TEST SUMMARY:

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

REFERENCE: Processed according to LAB-003: Sterility Test Procedure

METHOD VALIDATION / PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

Native Product Sterility Report

STERIS

CORRECTED REPORT

COMMENTS: Sample # 17090875
Report revised due to Customer request to update Sample Name / Description.

REVIEWED BY _____ DATE 09047

Mycoplasma Detection Assay Report

Testing Performed by WiCell

Lot Release Testing

December 20, 2018

FORM SOP-QU-004.01
Version G Edition 02
Reported by: AP
Reviewed by: JB
BD Monolight 180

#	Sample Name	Reading A		A	Reading B		B	Ratio	Result	Comments/Suggestions
		RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A		
1	MCW100i-U2341-WB66575 14192	249	269	259	82	85	83.5	0.32	Negative	
2	Positive (+) Control	397	396	396.5	30524	30825	30675	77.36	Positive	
3	Negative (-) Control	710	724	717	106	97	101.5	0.14	Negative