



Thaw and Culture Details

Cell Line Name	MCW031i-A3202
WiCell Lot Number	WB66537
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	p13 These cells were cultured for 12 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 13.
Date Vialied	16-August-2017
Vial Label	MCW031i-A3202 p13 WB66537
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: 47,XX,+12[2]/46,XX[18] Interpretation: This is an abnormal karyotype. There is an extra copy of chromosome 12 in two of twenty cells examined. Trisomy 12 is a recurrent acquired abnormality in human pluripotent stem cell cultures. No other clonal abnormalities were found.			
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
01-June-18	<p style="text-align: right;">6/4/2020</p> <p>X JKG JKG Quality Assurance Signed by Gay, Jenna</p>

Date Reported: Thursday, September 14, 2017

Cell Line Gender: Female

Cell Line: MCW031i-A3202-WB66537 12799

Reason for Testing: lot release testing

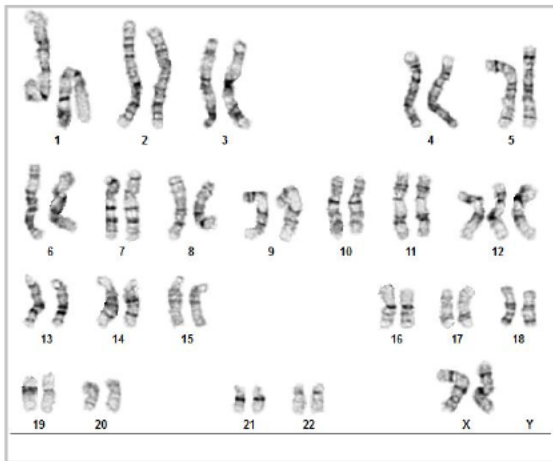
Passage#: 13

Date of Sample: 9/1/2017

Investigator: [REDACTED], WiCell CDM

Specimen: Human IPS

Results: 47,XX,+12[2]/46,XX[18]



Cell: 26

Slide: G01

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 9

Total Karyogrammed: 4

Band Resolution: 400 - 450

Interpretation:

This is an abnormal karyotype. There is an extra copy of chromosome 12 in two of twenty cells examined. Trisomy 12 is a recurrent acquired abnormality in human pluripotent stem cell cultures. No other clonal abnormalities were found.

Completed by: [REDACTED], CG(ASCP)

Reviewed and Interpreted by: [REDACTED] PhD, FACMG

A signed copy of this report is available upon request.

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 may not be relied upon by any other party without the prior written consent of the Director of the WiCell Cytogenetics Laboratory. The results of this assay are for research use only. If the results of this assay are to be used for any other purpose, contact the Director of the WiCell Cytogenetics Laboratory.

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

Department of Pathology and Laboratory Medicine
TRIP Laboratory (Molecular)
<http://www.pathology.wisc.edu/research/trip>

WiCell®
info@wicell.org
(888) 204-1782

Sample Report:

12799-STR
Sample Name on Tube: 12799-STR
40.9 ng/μL, (A260/280=2.22)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:

WiCell Research Institute
Quality Department

Sample Date: N/A

Receive Date: 09/05/17
Assay Date: 09/12/17
File Name: 170913 STR WMR
Report Date: 09/15/17

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 12799-STR cells submitted by WiCell QA dated and received on 09/05/17, this sample (Label on Tube: 12799-STR) defines the STR profile of the human stem cell line MCW031i-A3202 comprising 29 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human MCW031i-A3202 stem cell line were detected however, allelic imbalance (denoted by ** in table above) was observed at the FGQ loci and could be the result of chromosomal gains and/or losses in this cell line. 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 12799-STR sample submitted corresponds to the MCW031i-A3202 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 09/15/17

TRIP Laboratory, Molecular

X *WMR*

Digitally Signed on 09/15/17

PhD, Director / Co-Director
UWHC Molecular 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>

TRIP agrees to maintain the confidentiality of any information provided to it in connection with its performance of this STR analysis on the same conditions as set forth in paragraph 2 of WiCell's Terms and Conditions of Service (<http://www.wicell.org/media.acux/1a429b84-2b54-44a4-8ad8-5c05db93dd8a>).

Native Product Sterility Report



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

SAMPLE #: 18052304
DATE RECEIVED: 31-May-18
TEST INITIATED: 22-Jun-18
TEST COMPLETED: 06-Jul-18

SAMPLE NAME / DESCRIPTION: SCRP6703i WB66803 13763
RUES3 WB66807 13764
RUES1 WB66808 13765
WC007i-FX13-2 WB66809 13766
MCW001i-40001487 DB66306 13767
MCW007i-U2456 DB66312 13768
MCW009i-40002262 DB66314 13770
MCW031i-A3202 WB66537 13771
MCW077i-40001579 WB66500 13772
MCW076i-U2129 WB66507 13773

UNIQUE IDENTIFIER: NA
PRODUCT REGISTRATION: Other: Human iPS cells

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	0	2 Negatives

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

REFERENCE: Processed according to LAB-003: Sterility Test Procedure
METHOD VALIDATION / PD #: 000053
TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: NA

REVIEWED BY

D. S. S. S.

DATE 09 JUL 18

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.



Mycoplasma Detection Assay Report

Testing Performed by WiCell

Lot Release Testing

August 30, 2017

FORM SOP-QU-004.01

Version F Edition 02

Reported by: KR

Reviewed by: JB

BD Monolight 180

#	Sample Name	Reading A		A Ave	Reading B		B Ave	Ratio B/A	Result	Comments/Suggestions
		RLU1	RLU2		RLU1	RLU2				
1	MCW031i-A3202-WB66537 12799	230	240	235	90	90	90	0.38	Negative	
2	Positive (+) Control	387	395	391	25241	25413	25327	64.77	Positive	
3	Negative (-) Control	573	581	577	66	63	64.5	0.11	Negative	

