



Thaw and Culture Details

Cell Line Name	MCW078i-4000978
WiCell Lot Number	WB67060
Parent Material	MCW078i-4000978-DB66372
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: mTeSR1™
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR1 Protocol
Passage Number	p15 These cells were cultured for 14 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 15.
Date Viald	12-March-2019
Vial Label	MCW078i-4000978 p15 WB67060
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
	<p>Results: 46,XY Nonclonal findings: 47,XY,+12 Interpretation: This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution. There is a nonclonal finding, listed above, which contains a chromosomal aberration (trisomy 12) recurrently acquired in pluripotent stem cell cultures. An additional twenty cells were examined for this chromosomal aberration; it was not observed. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.</p>			
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 (MEGA^{EX})

Approval Date	Quality Assurance Approval
04-June-2020	<p style="text-align: right;">6/4/2020</p> <p>X JKG JKG Quality Assurance Signed by Gay, Jenna</p>

Date Reported: Thursday, April 11, 2019
Cell Line: MCW078i-40000978-WB67060
 14446

Cell Line Sex: Male
Reason for Testing: lot release testing

Passage#: 15

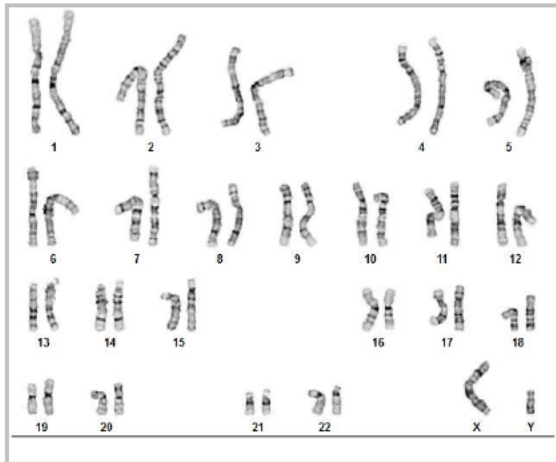
Date of Sample: 4/2/2019

Investigator: [REDACTED], WiCell

Specimen: Human IPS

Results: 46,XY

Nonclonal findings: 47,XY,+12



Cell: 18
Slide: G03
Slide Type: Karyotype
Total Counted: 40
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 425 - 500

Interpretation:

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

There is a nonclonal finding, listed above, which contains a chromosomal aberration (trisomy 12) recurrently acquired in pluripotent stem cell cultures. An additional twenty cells were examined for this chromosomal aberration; it was not observed. 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".

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.



HISTOLOGY - IHC - MOLECULAR - IMAGING

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

Short Tandem Repeat Analysis



Your Lab Partner

characterization@wicell.org
(608) 316-4145

Sample Report:

14446-STR

Sample Name on Tube: 14446-STR

38.7 ng/ μ L, (A260/280=1.11)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute

Quality Assurance Department

Receive Date: 04/08/19

Report Sent: 04/15/19

Assay Date: 04/09/18

File Name: STR 190411 wmr

Report Date: 04/11/19

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 14446-STR cells submitted by WiCell QA dated and received on 04/08/19, this sample (Label on Tube: 14446-STR) defines the STR profile of the human stem cell line MCW078i-40000978 comprising 24 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human MCW078i-40000978 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 14446-STR sample submitted corresponds to the MCW078i-40000978 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 04/15/19

X *WMR*

Digitally Signed on 04/15/19

██████████, BA
TRIP Laboratory, Molecular

██████████ 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>

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Native Product Sterility Report



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

SAMPLE #: 19041939
DATE RECEIVED: 25-Apr-19
TEST INITIATED: 30-Apr-19
TEST COMPLETED: 14-May-19

SAMPLE NAME / DESCRIPTION:	STAN364i-005C2	DB44301	14586
	MCW028i-A7312	WB67058	14587
	MCW040i-40001098	WB67059	14588
	MCW078i-40000978	WB67060	14589
	JHU006i-1	WB67147	14590
	MCW056i-U7076	WB67150	14591
	WC045i-IVF15-38	WB67149	14592
	WC046i-IVF15-39	WB67148	14593
	MCW044i-U2448	WB67152	14594
	STAN349i-762C3	WB67151	14595

UNIQUE IDENTIFIER: NA

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	2	3 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

PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: TSB sample labeled STAN364i-005C2/DB44301/14586 and FTG sample labeled MCW040i-40001098/WB67059/14588 are positive.

REVIEWED BY 

DATE 17 MAY 19

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.



Mycoplasma Assay Report

PCR-based assay performed by WiCell

Lot Release Testing

02Apr19

FORM SOP-CH-044.03

Version B Edition 01

#	Sample Name	Result	Comments/Suggestions
1	MCW078i-40000978-WB67060 14446	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
2	Positive (+) Control	Positive	
3	Negative (-) Control	Negative	

Reported by: [REDACTED], Cell Culture Specialist

Reviewed by: [REDACTED] Cell Culture Specialist

Date: _____ Sent By: _____ Sent To: _____

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A gel image is available upon request.