



## Thaw and Culture Details

Cell Line Name	<b>MCW089i-4000312</b>
WiCell Lot Number	<b>WB67187</b>
Parent Material	MCW089i-4000312-DB66397
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	p17 These cells were cultured for 16 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 17.
Date Viald	08-May-2019
Vial Label	MCW089i-4000312 p17 WB67187
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><b>Results:</b> 46,XY,der(9)dup(9)(q13q34.3)inv(9)(p24q32)[4]/46,XY[15]            Nonclonal findings: 47,XY,+12</p> <p><b>Interpretation:</b> This is an abnormal karyotype. There is an unbalanced rearrangement of chromosome 9 that contains a terminal duplication of the long (q) arm of chromosome 9, followed by a pericentric inversion of chromosome 9, in four of twenty cells examined. The derivative chromosome 9 results gain of chromosome 9q. No other clonal abnormalities were detected at the stated band level of resolution.</p> <p>There is a nonclonal finding, listed above, which contains a chromosomal aberration (gain of chromosome 12) 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.</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<sup>EX</sup>)

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

**Date Reported:** Wednesday, December 11, 2019

**Cell Line Sex:** Male

**Cell Line:** MCW089i-40000312-WB67187  
15110

**Reason for Testing:** Lot Release Testing

**Passage#:** 17

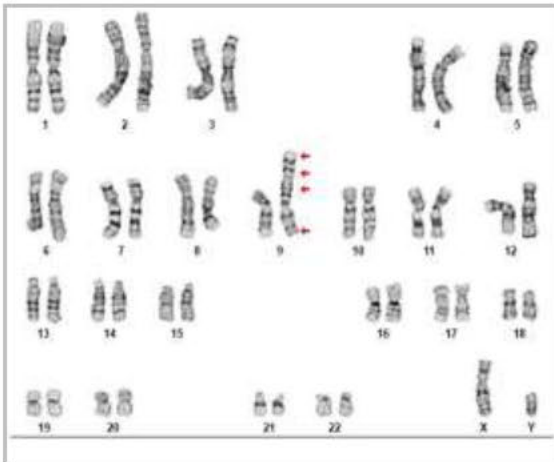
**Date of Sample:** 12/6/2019

**Investigator:** [REDACTED], WiCell

**Specimen:** Human IPSC

**Results:** 46,XY,der(9)dup(9)(q13q34.3)inv(9)(p24q32)[4]/46,XY[15]

**Nonclonal findings:** 47,XY,+12



**Cell:** 14

**Slide:** G02

**Slide Type:** Karyotype

**Total Counted:** 20

**Total Analyzed:** 8

**Total Karyogrammed:** 4

**Band Resolution:** 400 - 500

**Interpretation:**

**This is an abnormal karyotype. There is an unbalanced rearrangement of chromosome 9 that contains a terminal duplication of the long (q) arm of chromosome 9, followed by a pericentric inversion of chromosome 9, in four of twenty cells examined. The derivative chromosome 9 results gain of chromosome 9q. No other clonal abnormalities were detected at the stated band level of resolution.**

**There is a nonclonal finding, listed above, which contains a chromosomal aberration (gain of chromosome 12) 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.**

**Completed by:** [REDACTED], CG(ASCP)

**Reviewed and Interpreted by:** [REDACTED], Ph.D.

**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](http://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-home/>  
(608) 265-9168

# Short Tandem Repeat Analysis



[characterization@wicell.org](mailto:characterization@wicell.org)  
(608) 316-4145

**Sample Report:**

15110-STR

**Sample Name on Tube:** 15110-STR

69.9 ng/ $\mu$ L, (A260/280=1.84)

**Sample Type:** Cells

**Cell Count:** ~2 million cells

**Requestor:**

WiCell Research Institute

Quality Assurance Department

**Receive Date:** 12/16/19

**Report Sent:** 12/22/19

**Assay Date:** 12/18/19

**File Name:** STR 191219 wmr

**Report Date:** 12/20/19

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 <a href="#">WiCell's Technical Support</a> .
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 15110-STR cells submitted by WiCell QA dated and received on 12/16/19, this sample (Label on Tube: 15110-STR) defines the STR profile of the human cell line MCW089i-40000312 comprising 29 allelic polymorphisms across the 15 STR loci analyzed.

**Interpretation:** No STR polymorphisms other than those corresponding to the human MCW089i-40000312 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 15110-STR sample submitted corresponds to the MCW089i-40000312 cell line and was not contaminated with any other human 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 cell lines is ~2-5%.

X *RMB*

Digitally Signed on 12/20/19

X *WMR*

Digitally Signed on 12/20/19

██████████, 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: <https://research.pathology.wisc.edu/acknowledging-trip/>  
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# Native Product Sterility Report



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

SAMPLE #: 19052193  
DATE RECEIVED: 23-May-19  
TEST INITIATED: 03-Jun-19  
TEST COMPLETED: 17-Jun-19

SAMPLE NAME / DESCRIPTION:			
STAN011i-123-1	DB31129	14728	
STAN012i-123-2	DB31135	14729	
MCW066i-U2368	WB67169	14730	
MCW049i-40001630	WB67173	14731	
MCW083i-40000695	WB67174	14732	
MCW092i-U2390	WB67175	14733	
MCW094i-U7120	WB67177	14734	
MCW095i-U2311	WB67185	14735	
MCW088i-40000442	WB67186	14736	
MCW089i-40000312	WB67187	14737	
MCW080i-U2236	WB67188	14738	
CBiPS-6.2	DB66959	14739	
CBiPS-19.11	DB66960	14740	
CBiPS-6.13	DB66961	14741	
CBiPS-E12C1	DB66962	14742	
CBiPS-E17C6	DB66963	14743	
CBiPS-LZ6-1	DB66976	14744	
CBiPS-LZ6-2	DB66977	14745	
CBiPS-LZ6-12	DB66978	14746	
Sendai-9-1	DB66967	14747	
CBiPS-LZ6+3	DB66979	14748	
029 iPS clone 4	DB66975	14749	
retro-20.1	DB66966	14750	
NiPSC	DB66965	14751	
SCR2101i	DB42034	14752	
SCR2115i	DB42040	14753	
SCR2208i	DB42043	14754*	
UNIQUE IDENTIFIER:	NA		

# Native Product Sterility Report



## 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

## PD #:

000053

## TEST METHODOLOGY:

USP - Direct Transfer

## COMMENTS:

Sample #19052193

"Reported as" per packing slip

\*SCR2210i DB42046 14755  
SCR2305i DB42054 14756  
WC044i-IVF15-36 WB67190 14757

REVIEWED BY

DATE

20 Jun 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

WiCell  
06Dec19

FORM SOP-CH-048.01

Version A Edition 01

Sample Name	Result	Comments/Suggestions
MCW088i-40000442-WB67186 15111 (79386)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MCW089i-40000312-WB67187 15110 (79387)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
LN-18 p7, HNEpC p7 pHTM p7 INC124 Empirico 12/4/19 (79388)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
HEK-293 p15, 3T3-L1 p15 INC124 Empirico 12/4/19 (79389)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Reported by: [REDACTED], Assistant Research Specialist

Reviewed by: [REDACTED], Assistant Research Specialist

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*A gel image is available upon request.*