Thaw and Culture Details

Cell Line Name	UCSD055i-59-1
WiCell Lot Number	WB54168
Provider	University of California, San Diego – Dr. Kelly Frazer
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: mTeSR™1
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR™1 Protocol
Passage Number	p20 These cells were cultured for 19 passages prior to freeze and post reprogramming. WiCell adds +1 to the passage number to best represent the overall passage number of the cells at thaw.
Date Vialed	09-December-2016
Vial Label	UCSD055i-59-1 p20 WB54168
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,t(16;17)(q22;q21.1)[20] *Interpretation:* This is an abnormal karyotype showing what appears to be a balanced reciprocal translocation between the long arms (q) of chromosomes 16 and 17 in all metaphases analyzed. Comparison of this karyotype with the karyotype of the source (parental) specimen may be informative regarding the significance and origin of this abnormality. No other cytogenetic abnormalities were identified at the level of resolution achieved.			
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and recoverable attachment after passage	Pass
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Defines profile	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.

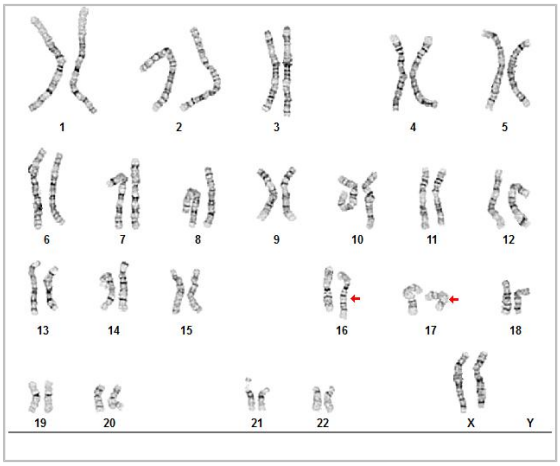
- Illumina® HumanCoreExome BeadChip Array
- RNA-Seq
- Flow Cytometry (SSEA-4, Tra 1-81)
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGA^{EX})

Approval Date	Quality Assurance Approval
04-January-2017	5/3/2018 X JKG JKG Quality Assurance Signed by: Gay, Jenna

Chromosome Analysis Report: 071386

Date Reported: Monday, April 23, 2018
Cell Line: UCSD055i-59-1-WB54168 13562
Passage#: 20
Date of Sample: 4/16/2018
Specimen: Human IPS
Results: 46,XX,t(16;17)(q22;q21.1)[20]

Cell Line Gender: Female
Reason for Testing: Lot release testing
Investigator: [redacted], WiCell



Cell: 1
Slide: G03
Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 500 - 625

Interpretation:

This is an abnormal karyotype showing what appears to be a balanced reciprocal translocation between the long arms (q) of chromosomes 16 and 17 in all metaphases analyzed. Comparison of this karyotype with the karyotype of the source (parental) specimen may be informative regarding the significance and origin of this abnormality. No other cytogenetic abnormalities were identified at the level of resolution achieved.

Completed by: [redacted], CG(ASCP)
Reviewed and Interpreted by: [redacted], PhD, FACMGG

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 resu lts 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.

TRIPath
HISTOLOGY - IHC - MOLECULAR - IMAGING
Department of Pathology and Laboratory Medicine
TRIP Laboratory (Molecular)
http://www.pathology.wisc.edu/research/trip

Short Tandem Repeat Analysis

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

Sample Report:
13562-STR
Sample Name on Tube: 13562-STR
76.4 ng/µL, (A260/280=1.79)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:
WiCell Research Institute
Quality Department

Sample Date: N/A
Receive Date: 04/23/18
Assay Date: 04/24/18
File Name: STR 180426 re do wmr
Report Date: 04/30/18

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 13562-STR cells submitted by WiCell QA dated and received on 04/23/18, this sample (Label on Tube: 13562-STR) defines the STR profile of the human stem cell line UCSD055i-59-1 comprising 26 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human UCSD055i-59-1 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 13562-STR sample submitted corresponds to the UCSD055i-59-1 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 05/02/18**

[redacted], *BA*
TRIP Laboratory, Molecular

X *WMR* **Digitally Signed on 05/02/18**

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

Native Product Sterility Report

STERIS

SAMPLE #:	17121502
DATE RECEIVED:	21-Dec-17
TEST INITIATED:	26-Dec-17
TEST COMPLETED:	09-Jan-18

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

SAMPLE NAME / DESCRIPTION:

UCSD050i-54-1 WB54411 13186
UCSD051i-55-1 WB54717 13187
UCSD052i-56-1 WB57717 13188
UCSD053i-57-1 WB55067 13189
UCSD054i-58-1 WB55461 13190
UCSD055i-59-1 WB54168 13191
UCSD056i-60-1 WB57571 13192
UCSD057i-61-1 WB55674 13193
UCSD058i-62-1 WB57057 13194
UCSD059i-63-1 WB63472 13195
UCSD060i-64-1 WB57102 13196
UCSD063i-20-1 WB62421 13197
WISCO15i-SC7 WB66708 13198
UCSD235i-SAD2-4 WB66703 13199
STAN053i-149-1 WB66707 13200
HVRDi002-A WB66709 13201
WISCO14i-SC1 WB66706 13202
CREM032i-SS48-1 WB66711 13203
UCSD207i-31-2 WB66716 13204
UCSD065i-20-3 WB60829 13205

UNIQUE IDENTIFIER: NA

PRODUCT REGISTRATION: Other: Human iPS cells

TEST RESULTS:

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

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: Processed according to LAB-003: Sterility Test Procedure

METHOD VALIDATION / PD #: 000053

Native Product Sterility Report

STERIS

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: Sample # 17121502

REVIEWED BY _____ DATE 10JAN18

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

April 16, 2018

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

#	Sample Name	Reading A		A Ave	Reading B		B Ave	Ratio B/A	Result	Comments/Suggestions
		RLU1	RLU2		RLU1	RLU2				
1	UCSD055i-59-1-WB54168 13562	245	249	247	92	84	88	0.36	Negative	
2	Positive (+) Control	427	435	431	23689	23939	23814	55.25	Positive	
3	Negative (-) Control	669	659	664	80	83	81.5	0.12	Negative