Thaw and Culture Details

Cell Line Name	UCSD161i-93-1
WiCell Lot Number	WB54536
Provider	University of California, San Diego – Dr. Kelly Frazer
Banked By	WiCell
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 4 wells of a 6 well plate.
Culture Platform	Feeder Independent
	Medium: mTeSR™1
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR™1 Protocol
Passage Number	p18 These cells were cultured for 17 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	11-December-2016
Vial Label	UCSD161i-93-1 p18 WB54536
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	Fail
	Results: 46,X,inv(X)(p11.4q22.3)[8]/46,XX[11] Nonclonal findings: 46,XX,+20 ***Interpretation:*** *This is an abnormal karyotype. There is an apparently balanced pericentric inversion in one X chromosome in eight of twenty cells that were examined. No other clonal abnormalities were found. There is one nonclonal finding, listed above. 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, ≤ 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	X HEB HEB Quality Assurance Signed by: Bruner, Haley

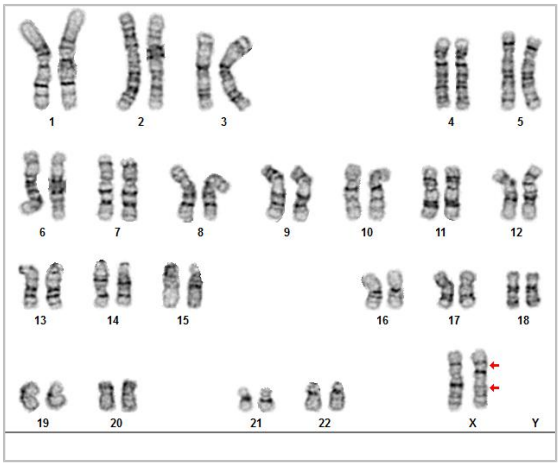
Chromosome Analysis Report: 067890

Date Reported: Friday, September 22, 2017
Cell Line: UCSD161i-93-1-WB54536 12867
Passage#: 18
Date of Sample: 9/12/2017
Specimen: Human IPSC
Results: 46,X,inv(X)(p11.4q22.3)[8]/46,XX[11]

Nonclonal findings: 46,XX,+20

Cell Line Gender: Female
Reason for Testing: lot release testing

Investigator: [redacted] WiCell CDM



Cell: 57
Slide: G01
Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 9
Total Karyogrammed: 5
Band Resolution: 425 - 475

Interpretation:

This is an abnormal karyotype. There is an apparently balanced pericentric inversion in one X chromosome in eight of twenty cells that were examined. No other clonal abnormalities were found.

There is one nonclonal finding, listed above. 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

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".

Short Tandem Repeat Analysis

School of Medicine and Public Health
UNIVERSITY OF WISCONSIN-MADISON
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:
12867-STR
Sample Name on Tube: 12867-STR
70.0 ng/µL, (A260/280=1.81)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:
WiCell Research Institute
Quality Department

Sample Date: N/A
Receive Date: 09/18/17
Assay Date: 09/19/17
File Name: 170920 STR WMR
Report Date: 09/21/17

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 12867-STR cells submitted by WiCell QA dated and received on 09/18/17, this sample (Label on Tube: 12867-STR) defines the STR profile of the human stem cell line UCSD161i-93-1 comprising 29 allelic polymorphisms across the 15 STR loci analyzed.**

Interpretation: **No STR polymorphisms other than those corresponding to the human UCSD161i-93-1 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 12867-STR sample submitted corresponds to the UCSD161i-93-1 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 09/21/17**

[redacted]
TRIP Laboratory, Molecular

X *WMR* **Digitally Signed on 09/21/17**

[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

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

September 14, 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	UCSD161i-93-1-WB54536 12867	130	128	129	55	55	55	0.43	Negative	
2	Positive (+) Control	407	430	418.5	37240	37764	37502	89.61	Positive	
3	Negative (-) Control	713	753	733	81	84	82.5	0.11	Negative