Thaw and Culture Details

Cell Line Name	UCSD231i-SAD1-3
WiCell Lot Number	WB66915
Parent Material	UCSD231i-SAD1-3-DB26804
Provider	University of California, San Diego – Laboratory of Dr. Lawrence Goldstein
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	p29 These cells were cultured for 28 passages prior to freeze and post reprogramming. 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 29.
Date Vialed	14-September-2018
Vial Label	UCSD231i-SAD1-3 p29 WB66915
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 Nonclonal findings: 46,XX,add(8)(q21.2) ***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. 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	Consistent with known profile	Pass
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass

Testing Reported by Provider

For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

Test Description	Method	Result
Pluripotency	FACS	Expressed the pluripotency-associated proteins NANOG and TRA1-81. See the publication for Mean % TRA1-81.
Teratoma	Injected into nude rats	Differentiated into cells of ectodermal, mesodermal, and endodermal lineages in vitro.

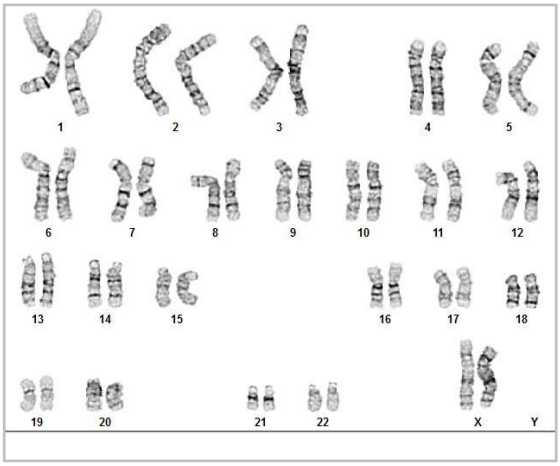
Approval Date	Quality Assurance Approval
25-October-2018	10/25/2018 X JKG JKG Quality Assurance Signed by: Gay, Jenna

Chromosome Analysis Report: 073332

Date Reported: Friday, September 28, 2018
Cell Line: UCSD231i-SAD1-3-WB66915 14018
Passage#: 29
Date of Sample: 9/21/2018
Specimen: Human IPS
Results: 46,XX

Cell Line Sex: Female
Reason for Testing: Lot Release Testing
Investigator: [redacted], WiCell

Nonclonal findings: 46,XX,add(8)(q21.2)



Cell: 9
Slide: G01
Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 425 - 525

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. 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".

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:
14018-STR
Sample Name on Tube: 14018-STR
82.3 ng/µL, (A260/280=1.84)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:
WiCell Research Institute
Quality Department

Sample Date: N/A
Receive Date: 10/01/18
Assay Date: 10/02/18
File Name: STR 181005 wmr
Report Date: 10/11/18

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 14018-STR cells submitted by WiCell QA dated and received on 10/01/18, this sample (Label on Tube: 14018-STR) exactly matches the STR profile of the human stem cell line UCSD231i-SAD1-3 comprising 26 allelic polymorphisms across the 15 STR loci analyzed.**

Interpretation: **No STR polymorphisms other than those corresponding to the human UCSD231i-SAD1-3 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 14018-STR sample submitted corresponds to the UCSD231i-SAD1-3 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 10/11/18**

[redacted], *BA*
TRIP Laboratory, Molecular

X *WMR* **Digitally Signed on 10/11/18**

[redacted], *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

STERIS

SAMPLE #:	18091843
DATE RECEIVED:	27-Sep-18
TEST INITIATED:	03-Oct-18
TEST COMPLETED:	17-Oct-18

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

SAMPLE NAME / DESCRIPTION: JHU018i, WB66902 14027
UCSD182i-3-2, WB66903 14028
LUEL8361i-1, WB66906 14029
LUEL8312i-1, WB66907 14030
LUEL8363i-2, WB66912 14031
LUEL7159i-7,WB66914 14032
UCSD231i-SAD1-3, WB66915 14033
LUEL7994i-1, WB66916 14034
LUEL8357i-2, WB66917 14035
LUEL7153i-2, WB66918 14036

UNIQUE IDENTIFIER: NA

PRODUCT REGISTRATION: Other: Human iPS cells

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	1	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: Sample labeled as LUEL7159i-7 was positive in both TSB and FTG.

REVIEWED BY _____ DATE 22OCT18

Mycoplasma Detection Assay Report

Testing Performed by WiCell

Lot Release Testing

September 20, 2018

FORM SOP-QU-004.01
Version G Edition 02
Reported by: AP
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	UCSD231i-SAD1-3-WB66915 14018	250	246	248	90	100	95	0.38	Negative	
2	Positive (+) Control	343	347	345	46171	46330	46251	134.06	Positive	
3	Negative (-) Control	701	711	706	93	89	91	0.13	Negative