Thaw and Culture Details

Cell Line Name	UCSD008i-44-1
WiCell Lot Number	WB66287
Provider	University of California, San Diego – Dr. Kelly Frazer
Banked By	University of California, San Diego – Dr. Kelly Frazer
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 2 wells of a 6 well plate.
Culture Platform	Feeder Independent
	Medium: mTeSR™1
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR™1 Protocol
Passage Number	p22 These cells were cultured for 21 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	23-June-2017
Vial Label	UCSD008i-44-1 p22 WB66287
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	Pass
	Results: *46,XY,dup(20)(q11.2q11.2)[14]/46,XY[6]* ***Interpretation:*** *This is an abnormal karyotype. There is an interstitial duplication in the long arm of chromosome 20 in fourteen of twenty cells examined. This abnormality appears to be the recurrent acquired duplication of 20q seen in human pluripotent stem cell cultures. Confirmation of this abnormality by higher resolution (fluorescence in situ hybridization—FISH) testing is recommended. No other clonal defined abnormalities were found.*			
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.

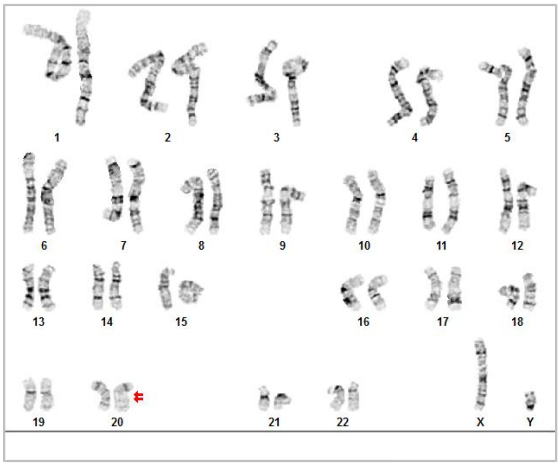
- Illumina® HumanCoreExome BeadChip Array
- RNA-Seq
- Flow Cytometry (SSEA-4, Tra 1-81)
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGA^{EX})

Approval Date	Quality Assurance Approval
20-May-2016	1/5/2018 X JKG JKG Quality Assurance Signed by: Gay, Jenna

Chromosome Analysis Report: 067033

Date Reported: Monday, July 24, 2017
Cell Line: UCSD008i-44-1-WB66287 12597
Passage#: 23
Date of Sample: 7/13/2017
Specimen: Human IPS
Results: 46,XY,dup(20)(q11.2q11.2)[14]/46,XY[6]

Cell Line Gender: Male
Reason for Testing: Lot release testing
Investigator: [redacted] WiCell CDM



Cell: 13
Slide: G01
Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 475 - 575

Interpretation:

This is an abnormal karyotype. There is an interstitial duplication in the long arm of chromosome 20 in fourteen of twenty cells examined. This abnormality appears to be the recurrent acquired duplication of 20q seen in human pluripotent stem cell cultures. Confirmation of this abnormality by higher resolution (fluorescence in situ hybridization—FISH) testing is recommended. No other clonal defined abnormalities were found.

Completed by: [redacted] CG(ASCP)
Reviewed and Interpreted by: [redacted], 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:
12597-STR
Sample Name on Tube: 12597-STR
53.2 ng/µL, (A260/280=2.15)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:
WiCell Research Institute
Quality Department

Sample Date: N/A
Receive Date: 07/10/17
Assay Date: 07/18/17
File Name: 170720 STR TCS
Report Date: 07/21/17

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 12597-STR cells submitted by WiCell QA dated and received on 07/10/17, this sample (Label on Tube: 12597-STR) defines the STR profile of the human stem cell line UCSD008i-44-1 comprising 25 allelic polymorphisms across the 15 STR loci analyzed.**

Interpretation: **No STR polymorphisms other than those corresponding to the human UCSD008i-44-1 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 12597-STR sample submitted corresponds to the UCSD008i-44-1 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 07/21/17**

[redacted]
TRIP Laboratory, Molecular

X *WMR* **Digitally Signed on 07/21/17**

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

Native Product Sterility Report

STERIS

CORRECTED REPORT

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

SAMPLE #:	17120390
DATE RECEIVED:	07-Dec-17
TEST INITIATED:	11-Dec-17
TEST COMPLETED:	26-Dec-17

SAMPLE NAME / DESCRIPTION:
UCSD125i-7-2 WB66673 13110
UCSD174i-18-2 WB66672 13111
UCSD177i-17-2 WB66671 13112
WISC011i-inGFPpuro WB66670 13113
UCSD008i-44-1 WB66287 13114
UCSD006i-21-1 WB57101 13116
UCSD007i-21-2 WB54928 13117
UCSD013i-16-3 WB61874 13118
UCSD014i-21-3 WB55344 13119
UCSD022i-8-3 WB59011 13120
UCSD023i-8-4 WB58972 13121
UCSD024i-13-3 WB58691 13122
UCSD025i-13-4 WB63445 13123
UCSD026i-9-1 WB54736 13124
UCSD028i-9-3 WB54172 13125
UCSD029i-9-4 WB63527 13126
UCSD030i-23-2 WB58975 13127
UCSD031i-45-1 WB58276 13128
UCSD032i-41-1 WB64803 13129
UCSD085i-6-2 WB61664 13139

UNIQUE IDENTIFIER: NA

PRODUCT REGISTRATION: 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: Report revised due to incorrect sample name/description.

REVIEWED BY _____ DATE 02JAN18

Mycoplasma Detection Assay Report

Testing Performed by WiCell

Lot Release Testing

July 6, 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	UCSD008i-44-1-WB66287 12597	256	265	260.5	120	108	114	0.44	Negative	
2	Positive (+) Control	453	451	452	37998	38147	38073	84.23	Positive	
3	Negative (-) Control	689	716	702.5	102	97	99.5	0.14	Negative