



Thaw and Culture Details

Cell Line Name	UCSD028i-9-3
WiCell Lot Number	WB66873
Parent Material	UCSD028i-9-3-WB54172
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: TeSR™-E8™
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent E8 Medium Protocol
Passage Number	p33 These cells were cultured for 32 passages prior to freeze and post reprogramming or colony picking. 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 33.
Date Viald	02-August-2018
Vial Label	UCSD028i-9-3 p33 WB66873
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>Results: 47,XY,+12,t(13;15)(q12.1;q21.2)[20] Interpretation: This is an abnormal karyotype. Twenty of twenty cells examined contain an extra chromosome 12 (trisomy 12), and contain an apparently balanced translocation between the long (q) arm of chromosome 13 and the long arm of chromosome 15. Gain of chromosome 12 is recurrently acquired in cultures of this cell type. No other clonal abnormalities were detected at the stated band level of resolution. Comparison of this karyotype with the karyotype of the source (parental) specimen may be informative regarding the significance and origin of the balanced translocation.</p>			
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

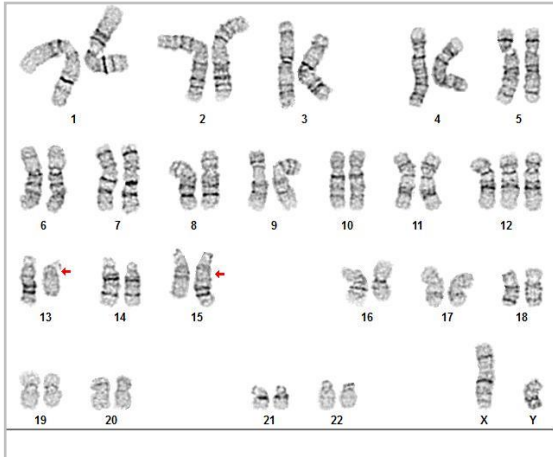
The Provider stated that some or all of the additional analyses listed below may have been performed for this cell line. For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

- 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
11-October-2018	<p style="text-align: right;">10/11/2018</p> <p>X JKG JKG Quality Assurance Signed by: Gay, Jenna</p>

Date Reported: Friday, August 24, 2018
Cell Line: UCSD028i-9-3-WB66873 13942
Passage#: 33
Date of Sample: 8/17/2018
Specimen: Human IPS
Results: 47,XY,+12,t(13;15)(q12.1;q21.2)[20]

Cell Line Sex: Male
Reason for Testing: Lot Release Testing
Investigator: ██████████, WiCell



Cell: 46
Slide: G03
Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 5
Band Resolution: 450 - 550

Interpretation:

This is an abnormal karyotype. Twenty of twenty cells examined contain an extra chromosome 12 (trisomy 12), and contain an apparently balanced translocation between the long (q) arm of chromosome 13 and the long arm of chromosome 15. Gain of chromosome 12 is recurrently acquired in cultures of this cell type. No other clonal abnormalities were detected at the stated band level of resolution.

Comparison of this karyotype with the karyotype of the source (parental) specimen may be informative regarding the significance and origin of the balanced translocation.

Completed by: ██████████, CG(ASCP)

Reviewed and Interpreted by: ██████████, 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".

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. 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.

Sample Report:

13942-STR

Sample Name on Tube: 13942-STR

200.3 ng/μL, (A260/280=1.95)

Sample Type: Cells**Cell Count:** ~2 million cells**Requestor:**

WiCell Research Institute

Quality Department

Sample Date: N/A**Receive Date:** 09/24/18**Assay Date:** 09/25/18**File Name:** STR 180926 wmr**Report Date:** 10/01/18

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 13942-STR cells submitted by WiCell QA dated and received on 09/24/18, this sample (Label on Tube: 13942-STR) defines the STR profile of the human stem cell line UCSD028i-9-3 comprising 26 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human UCSD028i-9-3 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 13942-STR sample submitted corresponds to the UCSD028i-9-3 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%.



Digitally Signed on 10/01/18

BA
TRIP Laboratory, Molecular

Digitally Signed on 10/01/18

PhD, Director / Co-Director
UWHC Molecular Diagnostics Laboratory / UWSPH TRIP Laboratory

Native Product Sterility Report



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

SAMPLE #: 18081822
DATE RECEIVED: 23-Aug-18
TEST INITIATED: 29-Aug-18
TEST COMPLETED: 12-Sep-18

SAMPLE NAME / DESCRIPTION: UCSD027i-9-2 WB57332 13953
WA07 CY66889 13954
LUEL7159i-16 WB66875 13955
UCSD028i-9-3 WB66873 13956
CREM003i-BU3C2 WB66874 13957
CREM018i-SS24-1 WB66883 13958
LUEL5748i-2 WB66878 13959
WC036i-0498-1 WB66882 13960
WC036i-0498-1 WB66884 13961
CREM024i-SS36-1 WB66886 13962
LUEL8360i-2 WB66888 13963
LUEL7991i-1 WB66891 13964
LUEL5748i-3 WB66894 13965
LUEL7153i-1 WB66895 13966
LUEL7673i-2 WB66898 13967
LUEL7149i-1 WB66899 13968
CREM029i-SS44-1 DB48061 13969
CREM030i-SS45-1 DB48064 13970
JHU012i-2 DB36196 13971
JHU017i DB36203 13972

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



TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: NA

REVIEWED BY

A handwritten signature in blue ink, written over a horizontal line. The signature is cursive and appears to read "G. Malin".

DATE

17 SEP 18

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

August 16, 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	UCSD028i-9-3-WB66873 13942	302	313	307.5	96	96	96	0.31	Negative	
2	Positive (+) Control	486	434	460	19592	19817	19705	42.84	Positive	
3	Negative (-) Control	896	897	896.5	94	87	90.5	0.10	Negative	

