

Thaw and Culture Details

Cell Line Name	UCSD014i-21-3						
WiCell Lot Number	WB55344						
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	15-December-2016						
Vial Label	UCSD014i-21-3 p20 WB55344						
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

100mig 10monilog injune								
Test Description	Test Provider	Test Method	Test Specification	Result				
Karyotype by G-banding	WiCell	SOP-CH-003	Expected karyotype	Pass				
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 (MEGAEX)



Approval Date	Quality Assurance Approval		
04-January-2017	1/22/2018 X JKG XC Quality Assurance Signed by Gay, Jenna		



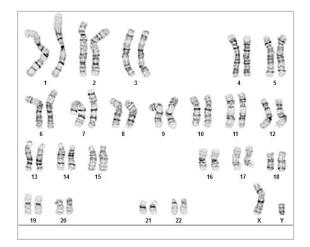
Chromosome Analysis Report: 070075

Date Reported: Friday, January 12, 2018
Cell Line: UCSD014i-21-3-WB55344 13226

Passage#: 20

Date of Sample: 1/8/2018 Specimen: Human IPSC

Results: 46,XY



Cell Line Gender: Male

Reason for Testing: lot release testing

Investigator: , WiCell CDM

Cell: 20 Slide: G03

Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8

Total Karyogrammed: 4
Band Resolution: 425 - 525

QC Review By: ____

Interpretation:

This is a normal karyotype. No clonal abnormalities were detected at the stated band level of resolution.

Sent By:____ Sent To:___

cell populations in this specimen (i.e.,mosaicism) is limited by the number of metaphase cells examined, documented here as "# of cells counted".

Completed by:	, CG(ASCP)
Reviewed and Interpreted by:	, PhD, FACMG

A signed copy of this report is available upon request.

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, be	and 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 karyogran	ns in this assay Detection of heterogeneity of clonal

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 results 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.



Short Tandem Repeat Analysis

HISTOLOGY - IHC - MOLECULAR - IMAGING

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:

13226-STR

Sample Name on Tube: 13226-STR

71.5 ng/µL, (A260/280=1.94)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute
Quality Department

Sample Date: N/A Receive Date: 01/16/18 Assay Date: 01/17/18

File Name: STR 180118 wmr

Report Date: 01/19/18

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						
TPOX								
D8S1179	7-18	protect donor						
vWA	10-22	confidentiality. If						
Amelogenin	X,Y	more information is required,						
Penta_D	<u> </u>							
CSF1PO	1PO 6-15							
D16S539	D16S539 5, 8-15							
D7S820	6-14							
D13S317	7-15							
D5S818	D5S818 7-16							
Penta_E	Penta_E 5-24							
D18S51	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							

<u>Results:</u> Based on the 13226-STR cells submitted by WiCell QA dated and received on 01/16/18, this sample (Label on Tube: 13226-STR) defines the STR profile of the human stem cell line UCSD014i-21-3 comprising 26 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human UCSD014i-21-3 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 13226-STR sample submitted corresponds to the UCSD014i-21-3 stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells.

<u>Sensitivity:</u> 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 01/22/18

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Native Product Sterility Report



WiCell

504 S Rosa Rd., RM 101

Madison, WI 53719

CORRECTED

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

WISC011i-inGFPpuro WB66670 131:
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

STERIS Laboratories, Inc. 9303 West Broadway Ave Brooklyn Park, MN 55445 LAB-003 rev 30 Form 5 Effective: 2017-08-29 Page 1 of 2

Native Product Sterility Report



TEST METHODOLOGY:

USP - Direct Transfer

COMMENTS:

Report revised due to incorrect sample name/description.

REVIEWED BY

DATE STANG

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

Testing Performed by WiCell Lot Release Testing January 12, 2018

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

		Reading A A		A	Read	ling B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	UCSD014i-21-3-WB55344 13226	204	210	207	81	85	83	0.40	Negative	
2	Positive (+) Control	340	347	343.5	17780	17867	17824	51.89	Positive	
3	Negative (-) Control	556	577	566.5	66	59	62.5	0.11	Negative	

