

Thaw and Culture Details

Cell Line Name	UCSD195i-29-2							
WiCell Lot Number	WB50124							
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 p22 These cells were cultured for 21 passages prior to freeze and post reprogramming. WiCell at the passage number to best represent the overall passage number of the cells at thaw.								
Date Vialed	13-November-2016							
Vial Label	UCSD195i-29-2 p22 WB50124							
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
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 Defines profile Promega		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)

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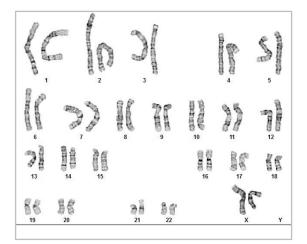
Approval Date	Quality Assurance Approval			
06-January-2017	10/11/2018 XG Quality Assurance Signed by: Gay, Jenna			

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The material provided under this certificate has been subjected to the tests specified and the results and data described herein are accurate based on WiCell's reasonable knowledge and belief. Appropriate Biosafety Level practices and universal precautions should always be used with this material. For clarity, the foregoing is governed solely by WiCell's Terms and Conditions of Service, which can be found at http://www.wicell.org/privacyandterms.



Date Reported: Friday, July 13, 2018 Cell Line: UCSD195i-29-2-WB50124 13845 Passage#: 22 Date of Sample: 7/10/2018 Specimen: Human IPS Results: 46,XX



Cell Line Sex: Female Reason for Testing: lot release testing
Investigator: , WiCell
Cell: 31
Slide: G01
Slide Type: Karyotype
Total Counted: 20

Total Analyzed: 8 Total Karyogrammed: 4 Band Resolution: 475 - 500

Interpretation:

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

Completed by: Reviewed and Interpreted by:

, PhD, FACMG

A signed copy of this report is available upon request.

Date:	Sont Pur	Sont To:	OC Poviow Pvr
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.



HISTOLOGY - IHC - MOLECULAR - IMAGING

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular) http://www.pathology.wisc.edu/research/trip

Sample Report: 13845-STR Sample Name on Tube: 13845-STR 88.3 ng/µL, (A260/280=1.81) Sample Type: Cells Cell Count: ~2 million cells

WiCell Research Institute **Quality Department**

Short Tandem Repeat

Analysis

Sample Date: N/A **Receive Date:** 07/16/18 Assay Date: 07/17/18 File Name: STR 180718 wmr repeat

Report Date: 07/23/18

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, Identifying 44.2,45.2,46.2 information has TPOX 6-13 been redacted to 7-18 protect donor D8S1179 confidentiality. If 10-22 vWA more information X.Y Amelogenin is required, 2.2, 3.2, 5, 7-17 Penta D please, contact CSF1PO 6-15 5,8-15 D16S539 6-14 D7S820 7-15 D13S317 7-16 D5S818 Penta E 5-24 8-10, 10.2, 11-13, 13.2, 14-27 D18S51 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 D21S11 **TH01** 4-9,9.3,10-11,13.3 12-20 D3S1358

Results: Based on the 13845-STR cells submitted by WiCell QA dated and received on 07/16/18, this sample (Label on Tube: 13845-STR) defines the STR profile of the human stem cell line UCSD195i-29-2 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human UCSD195i-29-2 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 13845-STR sample submitted corresponds to the UCSD195i-29-2 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 07/26/18	X WMR Digitally Signed on 07/26/18	
, BA TRIP Laboratory Molecular	, PhD, Director / Co-Director UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP 1	aborata

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).



Requestor:

Making life-saving products possible

WiCell Research Institute,	Inc.		BIOTEST SAMPLE #	16111519			
WiCell Quality Assurance 504 South Rosa Road, Room 101 Madison, WI 53719			VALIDATION #	NG			
			TEST PURPOSE	NG			
PRODUCT	MIN08i-33114.B-WB49930 11979, MIN09i-33114.C-WB49931 11980, UCSD034i-4-3- WB51215 11981, UCSD068i-19-2-WB50123 11982, UCSD195i-29-2-WB50124 11983, UCSD230i-SAD1-2-DB26801 11984, UCSD234i-SAD2-3-DB26813 11985, UCSD239i-APP2-1 DB26829 11986, UCSD240i-APP2-2-DB26832 11987, UCSD241i-APP2-3-DB26835 11988						
PRODUCT LOT	NA						
STERILE LOT	NA		BI LOT	NA			
STERILIZATION LOT	NA		BI EXPIRATION DATE	NA			
STERILIZATION DATE	NA		DATE RECEIVED	2016-11-22			
STERILIZATION METHOD	NA		TEST INITIATED	2016-11-23			
SAMPLING BLDG / ROOM	NA		TEST COMPLETED	2016-12-07			
REFERENCE	Processed according to LAB-003: Sterility Test Procedure						
	Ten (10) products were each divided between 40 mL TSB and 40 mL FTG. The samples were then cultured at 20-25 C and 30-35 C respectively and were monitored for a minimum of 14 days.						
	USP D BI Manufacturers Specific Other	cations					
RESULTS Sterile	# POSITIVES # TI 0	ESTED 10	POSITIVE CONTF NA	ROL NEGATIVE CONTROL 2 Negatives			
COMMENTS NA			DATE	08DECI6			
Specific test results may r	not be indicative of the characteristics of any oth neasurement associated with the measurement		the same lot or similar lots. Liability is I	imited to the costs of the tests.			

Biotest Laboratories = 9303 West Broadway Ave. = Brooklyn Park, MN 55445 = USA = (763) 315-1200

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Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing July 12, 2018 FORM SOP-QU-004.01 Version G Edition 02 Reported by: AP Reviewed by: JB BD Monolight 180

		Reading A A		Read	ling B	В	Ratio			
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	UCSD195i-29-2-WB50124 13845	203	214	208.5	77	83	80	0.38	Negative	
2	Positive (+) Control	278	289	283.5	38511	38821	38666	136.39	Positive	
3	Negative (-) Control	636	654	645	65	71	68	0.11	Negative	

