

Thaw and Culture Details

Cell Line Name	UCSD206i-31-1					
WiCell Lot Number	DB25304					
Provider	University of California, San Diego – Dr. Kelly Frazer					
Banked By	Jniversity of California, San Diego – Dr. Kelly Frazer					
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 1 well of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results. The Provider recommends only dispase passaging.					
Culture Platform	Feeder Independent					
	Medium: mTeSR™1					
	Matrix: Matrigel®					
Protocol	WiCell Feeder Independent mTeSR [™] 1 Protocol					
Passage Number	p20 These cells were cultured for 20 passages prior to freeze and post reprogramming. Add +1 to the passage number to best represent the overall passage number of the cells at thaw.					
Date Vialed	15-May-2012					
Vial Label	T334-Sendai-iPS–C5 P20 Mtg/Comm TeSR CARDiPS Project VM for ADP 5/15/2012					
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				
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	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				

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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.



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)

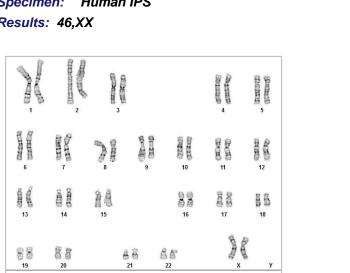
Approval Date	Quality Assurance Approval
03-June-2016	12/7/2017 RK Quality Assurance Signed by: Kremen, Erik

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Cell Line Gender: Female

Date Reported: Friday, October 27, 2017 Cell Line: UCSD206i-31-1-DB25304 13006 Passage#: 22 Date of Sample: 10/20/2017 Specimen: Human IPS Results: 46,XX



Investigator: , WiCell CDM Cell: 38 Slide: G03 Slide Type: Karyotype Total Counted: 20 Total Analyzed: 8

Reason for Testing: lot release testing

Total Karyogrammed: 4 Band Resolution: 425 - 550

Interpretation:

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

Completed by: Reviewed and Interpreted by: A signed copy of this report is ava				
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 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.

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Short Tandem Repeat Analysis

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

Sample Report: 13006-STR Sample Name on Tube: 13006-STR 83.0 ng/μL, (A260/280=1.89) Sample Type: Cells Cell Count: ~2 million cells

Requestor: WiCell Research Institute Quality Department WiCell[®] info@wicell.org (888) 204-1782

Sample Date: N/A Receive Date: 10/23/17 Assay Date: 10/24/17 File Name: STR 171025 wmr Report Date: 10/27/17

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
TPOX	6-13	been redacted to
D8S1179	7-18	protect donor
vWA	10-22	confidentiality. If
Amelogenin	X,Y	more information
Penta_D	2.2, 3.2, 5, 7-17	is required,
CSF1PO	6-15	please, contact
D16S539	5, 8-15	WiCell's Technical Support.
D7S820	6-14	<u>Support.</u>
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	

<u>Results:</u> Based on the 13006-STR cells submitted by WiCell QA dated and received on 10/23/17, this sample (Label on Tube: 13006-STR) defines the STR profile of the human stem cell line UCSD206i-31-1 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human UCSD206i-31-1 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 13006-STR sample submitted corresponds to the UCSD206i-31-1 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 10/30/17	X WMR	Digitally Signed on	10/30/17
TRIP Laboratory, Molecular	UWHC Moleculo	, PhD, Director / Co-Dire ar Diagnostics Laboratory / U	

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



WiCell 504 S Rosa Rd, Rm 101 Madison, WI 53719		SAMPLE #: DATE RECEIVED: TEST INITIATED: TEST COMPLETED:	17110123 02-Nov-17 06-Nov-17 20-Nov-17
SAMPLE NAME / DESCRIPTION:	iPS(Foreskin)-2-WB66647 13010 iPS(Foreskin)-3-WB66648 13011 UCSD206i-31-1-DB25304 13013 UCSD206i-31-1-WB66653 13014 UCSD207i-31-2-DB25300 13015 UCSD207i-31-2-WB66652 13016 USCD112i-2-11-DB25859 13017 UCSD002i-16-1-WB53932 13018 UCSD201i-4-2-WB63302 13019 UCSD004i-42-1-WB54900 13020		
UNIQUE IDENTIFIER:	NA		
PRODUCT REGISTRATION:	Other: Human iPS cells		

TEST RESULTS:	# Tested	# Positives (Growth)	- Control	
	10	0	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:

METHOD VALIDATION / PD #: **TEST METHODOLOGY:**

Processed according to LAB-003: Sterility Test Procedure 000053 **USP** - Direct Transfer

COMMENTS: NA

REVIEWED BY Deport

STERIS Laboratories, Inc. 9303 West Broadway Ave Brooklyn Park, MN 55445

DATE JONDUI LAB-003 rev 30 Form 5

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Effective: 2017-08-29

PRINTED ON 11/20/2017



Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing October 16, 2017 FORM SOP-QU-004.01 Version G Edition 02 Reported by: KR Reviewed by: JB BD Monolight 180

		Read	ing A	A Reading B		В	Ratio			
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	UCSD206i-31-1-DB25304 13001	185	185	185	72	64	68	0.37	Negative	
2	Positive (+) Control	257	260	258.5	18512	18781	18647	72.13	Positive	
3	Negative (-) Control	445	430	437.5	50	53	51.5	0.12	Negative	

