

Thaw and Culture Details

Cell Line Name	iPS DF6-9-9T.B-PCBC					
WiCell Lot Number	DB36844					
Provider	WiCell Research Institute					
Banked By	National Heart, Lung and Blood Institute Progenitor Cell Biology Consortium (NHLBI PCBC)					
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 2 wells 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	p29+7 These cells were cultured for 28 passages prior to freeze, at least 6 of them in mTeSR [™] 1/Matrigel [®] . The Provider adds +1 to the passage number at freeze to best represent what the overall passage number of the cells at thaw. Therefore, plated cells at thaw should be labeled passage 29.					
Date Vialed	29-July-2015					
Vial Label	SC11-018 p29+7 29July2015 RAS					
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 Recoverable attachment at passage		Pass
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Defines STR profile of deposited cell line	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 Synapse links, where available, are provided on the cell line specific web page on the WiCell website.

- RNA-Seq
- Teratoma representative of all three embryonic germ layers identified in all tumors with histopathological analysis
- SNP microarray
- Immunostaining analysis to confirm pluripotency and OCT4 to evaluate the presence of undifferentiated PSC
- mRNA, miRNA, and methylation profiling
- Genemoics characterization
- Flow Cytometry (SSEA-1, SSEA-4, Tra 1-61, Tra 1-80, CD9, OCT-4)

Approval Date	Quality Assurance Approval		
31-January-2019	944/2020 X HEB Quality Assurance Signed by Bruner, Haley		

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Date Reported: Wednesday, January 16, **Cell Line Sex:** Male 2019 Cell Line: iPS DF6-9-9T.B-DB36844-14211 Reason for Testing: Lot Release Testing Passage#: 30 Date of Sample: 1/10/2019 Investigator: , WiCell Specimen: Human IPS Results: 46,XY anasing the a11 Constant of **Cell: 69** Slide: G02 Slide Type: Karyotype Total Counted: 20 31 Total Analyzed: 8 Total Karyogrammed: 4 福昌 Band Resolution: 475 - 500 38 語目 10 66 動傷

Interpretation:

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

Completed by: Reviewed and Interpreted by:	, CG(ASC Ph						
Date:	Sent Bv:	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.

TRIPath

HISTOLOGY - IHC - MOLECULAR - IMAGING

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular) https://research.pathology.wisc.edu/trip/ (608) 265-9168

Sample Report:

14211-STR Sample Name on Tube: 14211-STR 80.7 ng/μL, (A260/280=1.86) Sample Type: Cells Cell Count: ~2 million cells

Short Tandem Repeat Analysis



characterization@wicell.org (608) 316-4145

Receive Date: 01/14/19 **Report Sent:** 02/01/19 **Assay Date:** 01/15/19 **File Name:** STR 190117 wmr **Report Date:** 02/01/19 amended

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
TPOX	6-13	information has
D8S1179	7-18	been redacted to
vWA	10-22	protect donor
Amelogenin	X,Y	confidentiality. If
Penta_D	2.2, 3.2, 5, 7-17	 more information is required,
CSF1PO	6-15	please, contact
D16S539	5, 8-15	WiCell's Technical
D7S820	6-14	Support.
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 14211-STR cells submitted by WiCell QA dated and received on 01/14/19, this sample (Label on Tube: 14211-STR) exactly matches the STR profile of the human stem cell line iPS DF6-9-9T.B comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human iPS DF6-9-9T.B 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 14211-STR sample submitted corresponds to the iPS DF6-9-9T.B 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 02/01/19	X WMR	Digitally Signed on 02/01/19
	TRIP La	, BA boratory, Molecular	UWHC Mole	, PhD, Director / Co-Director cular Diagnostics Laboratory / UWSMPH TRIP Laboratory

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 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 https://www.wicell.org/media.acux/ca76d97c-862a-43f3-b02a-ab2d1e619100. 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.

Requestor: WiCell Research Institute Quality Assurance Department

Native Product Sterility Report



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

SAMPLE #:	18121076
DATE RECEIVED:	13-Dec-18
TEST INITIATED:	17-Dec-18
TEST COMPLETED:	31-Dec-18

SAMPLE NAME / DESCRIPTION:

LUEL8363i-3 WB66952 14169, JHU088i DB41240 14170, JHU132i DB36272 14171, JHU102i DB41279 14172, JHU103i DB36236 14173, iPS DF19-9-7T DB36826 14174, iPS DF4-3-7T.A DB36837 14175, iPS DF6-9-9T.B DB36844 14176, MIRJT7i-mND2-0 DB36854 14177, IISH1i-BM1 DB36864 14178, IISH2i-BM9 DB36871 14179, IISH3i-CB6 DB36881 14180, WA01 DB36785 14181, WA07 DB36888 14182, WA09 DB36899 14183, WA24 DB36798 14184, JHU155i DB41365 14185, JHU184i DB41392 14186, JHU142i DB41344 14187, WA09 NA65899 14189.

UNIQUE IDENTIFIER:

NA

TEST RESULTS:	# Tested	# Positives (Growth)	- Control			
	20	1	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 accord	ling to LAB-003: St	erility Test Procedu	ire	
PD #:		000053				
TEST METHODOLOG	àΥ:	USP - Direct Transfer				

Sample labeled P142 P6 6/16/16 0.9M is positive in TSB and FTG media.

Reported as per packing slip.

REVIEWED BY

DATE AATSI

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. Results applied to samples as received.

STERIS Laboratories 9303 West Broadway Ave Brooklyn Park, MN 55445

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LAB-003 rev 32 Form 5 Effective: Nov 29, 2018 Page 1 of 1



Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing Janurary 3, 2019 FORM SOP-QU-004.01 Version G Edition 02 Reported by: SM Reviewed by: JB Berthold Flash n' Glow 539

		Read	ing A	A Reading B		В	Ratio			
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	iPS DF6-9-9T.B-DB36844 14211	148	142	145	52	49	50.5	0.35	Negative	
2	Positive (+) Control	133	135	134	6141	6191	6166	46.01	Positive	
3	Negative (-) Control	277	287	282	27	29	28	0.10	Negative	

