

Thaw and Culture Details

Cell Line Name	JHU191i		
WiCell Lot Number	DB41404		
Provider	Johns Hopkins University – Laboratory of Dr. Lewis Becker		
Banked By	Johns Hopkins University – Laboratory of Dr. Lewis Becker		
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results		
Culture Platform	Feeder Independent		
	Medium: E8		
	Matrix: Vitronectin		
Protocol	WiCell Feeder Independent E8 Medium Protocol		
Passage Number	p11 These cells were cultured for 11 passages post reprogramming prior to freeze. Add +1 to the passage number to best represent the overall passage number of the cells at thaw.		
Date Vialed	25-May-2016		
Vial Label	P191 P11 5/25/16 0.5M		
Biosafety and Use Information	This cell line is of human origin. 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 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-CH-044	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.

- Embryoid bodies
- Infinium[®] Expanded Multi-Ethnic Genotyping Array (MEGA^{EX})

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Approval Date	Quality Assurance Approval		
22-August-2016	5/9/2019 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.

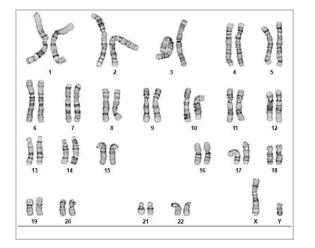


Date Reported: Tuesday, April 30, 2019 Cell Line: JHU191i-DB41404 14492 Passage#: 12 Date of Sample: 4/18/2019 Specimen: Human IPS Results: 46,XY

Cell Line Sex: Male Reason for Testing: lot release testing

Investigator:

, WiCell



Cell: 18 Slide: G03 Slide Type: Karyotype Total Counted: 20 Total Analyzed: 8 Total Karyogrammed: 4 Band Resolution: 475 - 550

Interpretation:

Date:

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

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

TRIPath

HISTOLOGY - IHC - MOLECULAR - IMAGING

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

Sample Report:

14492-STR Sample Name on Tube: 14492-STR 86.9 ng/μL, (A260/280=2.11) Sample Type: Cells Cell Count: ~2 million cells

Short Tandem Repeat Analysis

WiCell Research Institute

Quality Assurance Department

Requestor:



characterization@wicell.org (608) 316-4145

Receive Date: 04/29/19 Report Sent: 05/03/19 Assay Date: 05/01/19 File Name: STR 190501 wmr Report Date: 05/03/19

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, please, contact
CSF1PO	6-15	WiCell's Technical
D16S539	5, 8-15	Support.
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	

<u>Results:</u> Based on the 14492-STR cells submitted by WiCell QA dated and received on 04/29/19, this sample (Label on Tube: 14492-STR) defines the STR profile of the human stem cell line JHU191i comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human JHU191i 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 14492-STR sample submitted corresponds to the JHU191i 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 05/03/19	X WMR Digitally Signed on 05/03/19
TRIP Laboratory, Molecular	, PhD, Director / Co-Director UWHC Molecular 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.

Native Product Sterility Report



				SAMPLE #:	19021135
WiCell				DATE RECEIVED:	14-Feb-19
504 S Rosa Road, Rm 101				TEST INITIATED:	19-Feb-19
Madison, WI 53719			т	EST COMPLETED:	05-Mar-19
SAMPLE NAME / DE	ESCRIPTION:	JHU163i JHU177i STAN323i-928C2 STAN324i-928C6 WC024i-FXS-Nluc1 WC037i-20-02 JHU210i JHU191i JHU191i JHU259i STAN070i-169-2	DB36365 14328 DB36386 14329 DB35766 14330 DB35769 14331 WB67008 14332 WB67009 14333 DB36846 14334 DB41404 14335 DB37140 14336 WB67010 14337		
UNIQUE IDENTIFIE	R:	NA			
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: PD #: TEST METHODOLC	OGY:	Processed accor 000053 USP - Direct Tra	-	Sterility Test Procedur	.е
COMMENTS:	NA	1 1	/]		
REVIEWED BY	۲	mil	m	DATE_	DTMPR 19

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.



Mycoplasma Assay Report

PCR-based assay performed by WiCell Lot Release Testing 16Apr19

#	Sample Name	Result	Comments/Suggestions
1	JHU191i-DB41404 14492	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
2	Positive (+) Control	Positive	
3	Negative (-) Control	Negative	

Reported by: Sondra Minter, Cell Culture Specialist Reviewed by: Katie Remondini, Cell Culture Specialist _____ Sent By:____ Sent To_____ Date:

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A gel image is available upon request.