

Thaw and Culture Details

Cell Line Name	STAN204i-448C1
WiCell Lot Number	WB67189
Provider	Stanford University – Laboratory of Dr. Thomas Quetermous
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: mTeSR1™
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR1 [™] Protocol
Passage Number	p17 These cells were cultured for 16 passages prior to freeze and post colony selection. WiCell adds +1 to the passage number at freeze to best represent the overall passage number of the cells at thaw. Plated cells at thaw should be labeled passage 17.
Date Vialed	12-May-2019
Vial Label	STAN204i-448C1 p17 WB67189
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 prior to passage, ≤ 30% Differentiation prior to passage, and recoverable attachment after 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-CH-044	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.

- RNA-Seq
- Whole Genome Sequencing

Approval Date	Quality Assurance Approval
21-November-2019	7/17/2023 Xing Ryen Smith Xing Quality Assurance Signed by Smith, Ryen

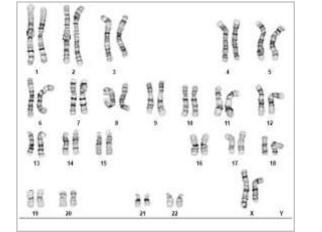
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Date Reported: Friday, November 1, 2019 Cell Line: STAN204i-448C1-WB67189 15089 Passage#: 18 Date of Sample: 10/29/2019 Specimen: Human IPSC Results: 46,XX Cell Line Sex: Female Reason for Testing: Lot Release Testing

, WiCell

Investigator:



Cell: 21
Slide: G02
Slide Type: Karyotype
Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 450 - 475

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	
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 or effect.

TRIPath

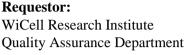
HISTOLOGY - IHC - MOLECULAR - IMAGING

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

Sample Report:

15089-STR Sample Name on Tube: 15089-STR 84.8 ng/μL, (A260/280=1.88) Sample Type: Cells Cell Count: ~2 million cells

Short Tandem Repeat Analysis





characterization@wicell.org (608) 316-4145

Receive Date: 11/04/19 Report Sent: 11/12/19 Assay Date: 11/08/19 File Name: STR 191111 wmr Report Date: 11/12/19

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
ТРОХ	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 WiCell's Technical
D16S539	5, 8-15	Support.
D7S820	6-14	<u>ouppont.</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 15089-STR cells submitted by WiCell QA dated and received on 11/04/19, this sample (Label on Tube: 15089-STR) defines the STR profile of the human cell line STAN204i-448C1 comprising 30 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human STAN204i-448C1 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 15089-STR sample submitted corresponds to the STAN204i-448C1 cell line and was not contaminated with any other human 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 cell lines is ~2-5%.

X RMB	Digitally Signed on 11/12/19	X WMR	Digitally Signed on 11/12/19
TRIP La	BA boratory, Molecular	UWHC Mole	PhD, Director / Co-Director ecular 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: https://research.pathology.wisc.edu/acknowledging-trip/ 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



WiCell	DAT
504 S Rosa Road, Rm 101	TES
Madison, WI 53719	TEST

SAMPLE #:	19060913
DATE RECEIVED:	12-Jun-19
TEST INITIATED:	14-Jun-19
TEST COMPLETED:	28-Jun-19

SAMPLE NAME / DESCRIPTION:	STAN204i-448C1 WB67189 14791
	MCW013i-A2767 WB67191 14792
	JHU242i DB37058 14793
	MCW085i-40002118 WB67193 14794
	MCW081i-U7128 WB67194 14795
	STAN043i-124-1 WB67196 14796
	STAN038i-118-2 WB67197 14797
	MCW007i-U2456 WB67198 14798
	MCW096i-40000169 WB67199 14799
	MCW074i-40002460 WB67203 14800
	MCW110i-U2170 WB67204 14801
	STAN044i-124-2 WB67206 14802
	MCW105i-U2130 WB67207 14803
	MCW103i-40000237 WB67208 14804
	MCW101i-40001005 WB67209 14805
	hIPSC-Di21-c2-4-4 WB67210 14806
	WA07 WB67212 14807
	WA07 WB67213 14808
	MCW021i-50001743 WB67214 14809
	hIPSC-Di21-c2-4-3 WB67215 14810
UNIQUE IDENTIFIER:	NA

UNIQUE IDENTIFIER:

TEST RESULTS:	# Tested	# Positives (Growth)	- Control
	20	0	2 Negatives

TEST SUMMARY	':
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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					
PD #:		000053				

TEST METHODOLOGY:

USP - Direct Transfer

Native Product Sterility Report



COMMENTS:

NA

REVIEWED BY

DATE 28 JUNIG

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.

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Mycoplasma Assay Report

PCR-based assay performed by WiCell WiCell 04Nov19

Sample Name	Result	Comments/Suggestions
WIZ04e-H9CAGmChry-WB67287 15092 (78907)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
SCRP4505i-WB67291 15087 (78912)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MCW080i-U2236-WB67188 15093 (78913)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MCW081i-U7128-WB67194 15091 (78914)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
MCW069i-40000268-WB67167 15088 (78915)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN204i-448C1-WB67189 15089 (78916)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Reported by: Katie Remondini, Cell Culture Specialist Reviewed by: Molly Miles, Cell Culture Specialist

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A gel image is available upon request.