

Thaw and Culture Details

Cell Line Name	STAN331i-952C3			
WiCell Lot Number	DB44191			
Provider	Stanford University – Laboratory of Dr. Thomas Quetermous			
Banked By	Icahn School of Medicine at Mount Sinai Stem Cell Core			
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: mTeSR1™			
	Matrix: Matrigel®			
Protocol	WiCell Feeder Independent mTeSR1 [™] Protocol			
Passage Number	p12 These cells were cultured for 12 passages after colony picking prior to freeze. Add +1 to the passage number to best represent the overall passage number of the cells at thaw.			
Date Vialed	03-September-2015			
Vial Label	ISMMS 952i-C3 P12 SLD 090315			
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 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

Test Description	Method	Result
Mycoplasma	Lonza MycoAlert kit	Negative

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

Approval Date	Quality Assurance Approval
08-November-2016	3/26/2020 XIG Vici Quality Assurance Signed by: Gay, Jenna

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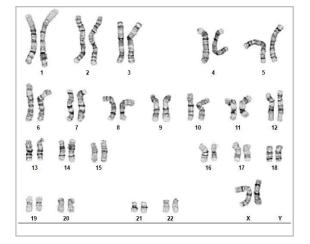


Chromosome Analysis Report: 080595

Date Reported: Thursday, February 27, 2020 Cell Line: STAN331i-952C3-DB44191 Passage#: 14 Date of Sample: 2/24/2020 Specimen: Human IPSC Results: 46,XX

Cell Line Sex: Female Reason for Testing: LOT_RELEASE

Investigator: WiCell Stem Cell Bank, WiCell



Conditions of Service are null and void and of no legal force or effect.

Cell: 17
Slide: G03
Slide Type: Karyotype
Total Counted: 20
Total Analyzed: 9
Total Karyogrammed: 5
Band Resolution: 450 - 525

Interpretation:

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

 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



TRIP Laboratory (Molecular)

Short Tandem Repeat Analysis



characterization@wicell.org

(608) 316-4145

Receive Date: 03/02/20 **Report Sent: 03/14/20** Assav Date: 03/10/20 File Name: STR 200311 wmr **Report Date: 03/14/20**

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

Results: Based on the STAN331i-952C3-DB44191 p.14 (D02 (80595) cells submitted by WiCell Characterization Department dated and received on 03/02/20, this sample (Label on Tube: STAN331i-952C3-DB44191 p.14 (D02 (80595)) defines the STR profile of the human cell line STAN331i-952C3 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human STAN331i-952C3 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 STAN331i-952C3-DB44191 p.14 (D02 (80595) sample submitted corresponds to the STAN331i-952C3 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 cell lines is ~2-5%.

X RMB Digitally Signed on 03/14/20	X WMR Digitally Signed on 03/14/20
, BA	, PhD, Director / Co-Director
TRIP Laboratory, Molecular	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: 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.

Sample Report:

(608) 265-9168

STAN331i-952C3-DB44191 p.14 (D02 (80595)

Department of Pathology and Laboratory Medicine

https://research.pathology.wisc.edu/trip-home/

22.0 ng/ μ L, (A260/280=1.49)

Sample Type: DNA Cell Count: N/A

Requestor:

WiCell Research Institute Sample Name on Tube: STAN331i-952C3-DB44191 p.14 (D02 (80595) Characterization Department

Native Product Sterility Report



	SAMPLE #:	19081786
WiCell	DATE RECEIVED:	22-Aug-19
504 S Rosa Road, Rm 101	TEST INITIATED:	28-Aug-19
Madison, WI 53719	TEST COMPLETED:	11-Sep-19
SAMPLE NAME / DESCRIPTION:	PACS1001i-GM27160 DB67267 14974	
	MCW029i-A2757 WB67282 14975	
	WC048i-17097-02-06 WB67278 14976	
	WC049i-17097-02-07 WB67280 14977	
	STAN331i-952C3 DB44191 14978	
	STAN332i-952C5 DB44194 14979	
	STAN250i-622C2 DB35669 14980	
	STAN252i-637C2 DB44374 14981	
	STAN156i-334C1 DB35697 14982	
	STAN157i-334C2 DB35700 14983	
UNIQUE IDENTIFIER:	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:		Processed accord	ding to LAB-003: St	erility Test Procedu	ıre
PD #:		000053			
TEST METHODOLOGY:		USP - Direct Trar	nsfer		
COMMENTS:	NA				

REVIEWED BY

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DATE 125ep19

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 WiCell 24Feb20

Sample Name	Result	Comments/Suggestions
STAN292i-827C2-DB44307 (80508)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN088i-060C1-DB35739 (80509)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN164i-352C1-DB35976 (80510)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN360i-465C2-DB44240 (80511)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN331i-952C3-DB44191 (80533)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN332i-952C5-DB44194 (80534)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN312i-906C3-DB44421 (80535)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN251i-637C1-DB44371 (80536)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
CREM024i-SS36-1-DB48037 (80537)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN252i-637C2-DB44374 (80538)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN311i-906C1-DB44418 (80539)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Reported by: Amber Kuhn, Assistant Research Specialist Reviewed by: Hannah Rueth, Assistant Research Specialist

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A gel image is available upon request.