

Thaw and Culture Details

Cell Line Name	STAN216i-496C1		
WiCell Lot Number	DB35535		
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 4 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	p13 These cells were cultured for 13 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	01-December-2015		
Vial Label	ISMMS 496i C1 P13 PEC 120115		
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
	WiCell	SOP-CH-003	Expected karyotype	See Report
Karyotype by G-banding	Results: 46,XY Nonclonal findings: 46,XY,t(9;13)(p13;q14) Interpretation: This is a normal karyotype; no clonal abnormalities were detected at the st band level of resolution. There is a nonclonal finding, listed above. Nonclonal findings may result from technical artifact may be due to a developing clonal abnormality or to low-level mosaicism.			
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	Recoverable attachment after passage	Pass
Identity by STR	UW Translational	PowerPlex 16 HS		
	Research Initiatives in	System by	Defines profile	Pass
	Pathology Laboratory	Promega		
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-CH-044	Negative	Pass

Testing Reported by Provider

Test Description	Method	Result
Mycoplasma	Lonza MycoAlert kit	Negative

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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.



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	
31-October-2016	5/23/2019 XG XG Quality Assurance Signed by Gay, Jenna	

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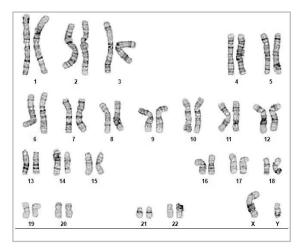


Date Reported: Friday, May 10, 2019 Cell Line: STAN216i-496C1-DB35535 14582 Passage#: 14 Date of Sample: 4/30/2019 Specimen: Human IPS Results: 46,XY Cell Line Sex: Male Reason for Testing: lot release testing

Investigator:

WiCell

Nonclonal findings: 46,XY,t(9;13)(p13;q14)



Cell: 26 Slide: G03 Slide Type: Karyotype Total Counted: 20 Total Analyzed: 8 Total Karyogrammed: 4

Band Resolution: 475 - 550

Interpretation:

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

There is a nonclonal finding, listed above. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.

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 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:

14582-STR Sample Name on Tube: 14582-STR 53.9 ng/μL, (A260/280=2.12) Sample Type: Cells Cell Count: ~2 million cells

Short Tandem Repeat Analysis



characterization@wicell.org (608) 316-4145

Receive Date: 05/06/19 Report Sent: 05/09/19 Assay Date: 05/07/19 File Name: STR 190508 wmr Report Date: 05/10/19

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 14582-STR cells submitted by WiCell QA dated and received on 05/06/19, this sample (Label on Tube: 14582-STR) defines the STR profile of the human cell line STAN216i-496C1 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human STAN216i-496C1 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 14582-STR sample submitted corresponds to the STAN216i-496C1 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 05/10/19	X WMR Digitally Signed on 05/10/19
, 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.

Requestor: WiCell Research Institute Quality Assurance Department

Native Product Sterility Report



	SAMPLE #:	18111110
WiCell	DATE RECEIVED:	15-Nov-18
504 S Rosa Rd , Rm 101	TEST INITIATED:	26-Nov-18
Madison, WI 53719	TEST COMPLETED:	10-Dec-18
SAMPLE NAME / DESCRIPTION:	LUEL8357i-3 WB66939 14103	
	LUEL8679i-4 WB66940 14104	
	STAN100i-108C4 DB44605 14105	
	STAN099i-108C2 DB44602 14106	
	STAN207i-459C2 DB35961 14107	
	STAN206i-459C1 DB35958 14108	
	STAN216i-496C1 DB35535 14109	
	LUEL7159i-7 WB66914 14110	
	EFNB2-tdTomato/EPHB4-EGFP DB66613 14116	
	JHU012i-2 DB36196 14117	
UNIQUE IDENTIFIER:	NA	
PRODUCT REGISTRATION:	Other: Human iPS cells	

PRODUCT REGISTRATION:

TEST RESULTS:	# Tested	# Positives (Growth)	- Control
	10	1	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:

Sample labeled LUEL7159i-7 WB66914 14110 is positive in TSB and FTG.

REVIEWED BY

DATE 201 118

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.



Mycoplasma Assay Report

PCR-based assay performed by WiCell Lot Release Testing 30Apr19

#	Sample Name	Result	Comments/Suggestions
1	STAN216i-496C1-DB35535 14582	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
2	Positive (+) Control	Positive	
3	Negative (-) Control	Negative	

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

Date:

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A gel image is available upon request.