

Thaw and Culture Details

Cell Line Name	STAN175i-373C4		
WiCell Lot Number	DB44553		
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 2 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 number to best represent the overall passage number of the cells at thaw.			
Date Vialed	08-September-2015		
Vial Label	ISMMS 373i C4P12 AP 090815		
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 profile	Pass
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

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})

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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.



Approval Date	Quality Assurance Approval
31-October-2016	3/26/2019 XIG Quality Assurance Signed by: Gay, Jenna

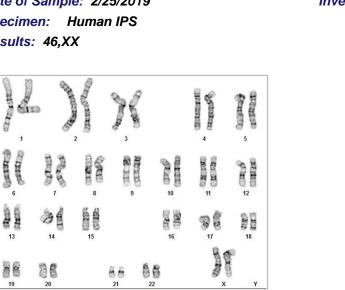
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Cell Line Sex:

Date Reported: Wednesday, March 06, 2019 Cell Line: STAN175i-373C4-DB44553 14365 Passage#: 14 Date of Sample: 2/25/2019 Specimen: Human IPS Results: 46,XX



Reason for Testing: lot release testing Investigator: _____, WiCell Cell: 2 Slide: G03 Slide Type: Karyotype Total Counted: 20

Female

Total Analyzed: 8 Total Karyogrammed: 4 Band Resolution: 475 - 525

Interpretation:

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

Completed by: Reviewed and Interpreted by:	,	(ASCP) D, 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/ (608) 265-9168

Sample Report:

14365-STR Sample Name on Tube: 14365-STR 84.5 ng/μL, (A260/280=1.83) 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: 03/04/19 Report Sent: 03/14/19 Assay Date: 03/06/19, 03/12/19 File Name: STR 190313 wmr Report Date: 03/14/19

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,
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 14365-STR cells submitted by WiCell QA dated and received on 03/04/19, this sample (Label on Tube: 14365-STR) defines the STR profile of the human stem cell line STAN175i-373C4 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human STAN175i-373C4 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 14365-STR sample submitted corresponds to the STAN175i-373C4stem 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 03/14/19	X WMR	Digitally Signed on 03/14/19
TRIP L	, BA aboratory, 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.

Native Product Sterility Report



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

SAMPLE #:	19020546
DATE RECEIVED:	07-Feb-19
TEST INITIATED:	12-Feb-19
TEST COMPLETED:	26-Feb-19

SAMPLE NAME / DESCRIPTION:

JHU142i DB41344 14264 LUEL8357i-3 WB66993 14265 LUEL8361i-2 WB66989 14266 LUEL7991i-4 WB66994 14267 WC039i-17097-01-22 WB67004 14268 WC040i-17097-01-26 WB67005 14269 WC041i-17097-01-34 WB67002 14270 LUEL7159i-7 WB67001 14271 JHU106i WB67003 14272 LUEL8312i-4 WB67006 14273 WA09 WB66998 14306 WA09 WB66999 14307 WA09 WB67000 14308 STAN269i-720C2 DB44430 14309 STAN371i-868C5 DB44638 14310 WC038i-38-01 WB67007 14311 MIN02i-32517.B WB20619 14312 JHU162i DB36362 14313 STAN175i-373C4 DB44553 14322 STAN176i-373C6 DB44556 14323

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:

PD #:

Processed according to LAB-003: Sterility Test Procedure 000053

Native Product Sterility Report



COMMENTS:

Sample labeled as "JHU142i DB41344 14264" was positive in both TSB and FTG.

REVIEWED BY

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DATE X

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 22Feb19

#	Sample Name	Result	Comments/Suggestions
1	STAN175i-373C4-DB44553 14365		Band was not seen at 270bp, indicating the absence of mycoplasma
2	Positive (+) Control	Positive	
3	Negative (-) Control	Negative	

Reported by: Gustavo Velazquez, Research Specialist - Cytogenentics **Reviewed by: Sondra Minter, Cell Culture Specialist** _____ Sent By:____ Sent To_____

Date:

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A gel image is available upon request.