

Thaw and Culture Details

Cell Line Name	STAN031i-46-2							
WiCell Lot Number	DB30945							
Provider	Stanford University – Laboratory of Dr. Marlene Rabinovitch							
Banked By	Stanford University – Laboratory of D	Stanford University – Laboratory of Dr. Marlene Rabinovitch						
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 1 well of a 6 well plate.							
Culture Platform	Feeder Independent							
	Medium: E8							
	Matrix: Matrigel®							
Protocol	WiCell Feeder Independent E8 Medium Protocol							
Passage Number	p10 These cells were cultured for 10 passages prior to freeze and post reprogramming. Add +1 to the passage number to best represent the overall passage number of the cells at thaw.							
Date Vialed	04-December-2015							
Vial Label	12/04/2015E 46D####-####ip SCVI46C2 P10V##########							
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-QU-004	Negative	Pass				

Testing Reported by Provider

Test Description	Method	Result				
Identity	SNP	iPSCs match the donor material				
Mycoplasma	Lonza MycoAlert [™] kit	Negative				

The Provider stated that the additional analysis 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.
- Infinium[®] Expanded Multi-Ethnic Genotyping Array (MEGA^{EX})

©2016 WiCell Research Institute

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			
	1/17/2019			
04-June-2016	X JKG			
	JKG Quality Assurance Signed by: Gay, Jenna			

©2016 WiCell Research Institute

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: Thursday, December 20, Cell Line Sex: Female 2018 Cell Line: STAN031i-46-2-DB30945 14144 Reason for Testing: Lot Release Testing Passage#: 12 Date of Sample: 12/14/2018 Investigator: WiCell Specimen: Human IPS Results: 46,XX Cell: 11 Slide: G02 Slide Type: Karyotype Total Counted: 20 Total Analyzed: 8 Total Karyogrammed: 4 Band Resolution: 400 - 450 38 18 H BA 66

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	

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:

14144-STR Sample Name on Tube: 14144-STR 40.5 ng/μL, (A260/280=1.98) Sample Type: Cells Cell Count: ~2 million cells **Requestor:** WiCell Research Institute Quality Assurance Department

Short Tandem Repeat

Analysis



characterization@wicell.org (608) 316-4145

Receive Date: 01/02/19 Report Sent: 01/07/19 Assay Date: 01/02/19 File Name: STR 190103 revised wmr Report Date: 01/07/19

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	
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 14144-STR cells submitted by WiCell QA dated and received on 01/02/19, this sample (Label on Tube: 14144-STR) defines the STR profile of the human stem cell line STAN031i-46-2 comprising 30 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human STAN031i-46-2 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 14144-STR sample submitted corresponds to the STAN031i-46-2 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 01/07/19	X WMR	Digitally Signed on 01/07/19
TRIP La	, BA Iboratory, 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, Wł 53719		SAMPLE #: DATE RECEIVED: TEST INITIATED: TEST COMPLETED:	18120565 06-Dec-18 11-Dec-18 25-Dec-18
SAMPLE NAME / DESCRIPTION:	STAN027i-30-2 DB30909 14151 STAN030i-46-1 DB30936 14152 STAN039i-119-1 DB30921 14153 STAN067i-168-1 DB31156 14154 STAN071i-179-1 DB31091 14155 STAN026i-30-1 DB30903 14156 STAN026i-30-1 DB30945 14157 STAN040i-119-2 DB30930 14158 STAN068i-168-2 DB31162 14159 STAN072i-179-2 DB31153 14160		
UNIQUE IDENTIFIER:	NA		

TEST RESULTS:	# Tested	# Positives (Growth)	- Control	
	10	0	2 Negatives	

TEST SUMMARY:

MARY:	# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)	
	10	TSB	40	20-25	14	
	10	FTG	40	30-35	14	
		Dueseeseles				

REFERENCE: PD #:

Processed according to LAB-003: Sterility Test Procedure 000053 USP - Direct Transfer

COMMENTS: NA

TEST METHODOLOGY:

REVIEWED BY 10 C

EC18 DATE 31

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 Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing December 06, 2018 FORM SOP-QU-004.01 Version G Edition 02 Reported by: AP Reviewed by: JB BD Monolight 180

		Read	ing A	Α	Read	ling B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	STAN031i-46-2-DB30945 14144	294	299	296.5	99	94	96.5	0.33	Negative	
2	Positive (+) Control	475	470	472.5	51430	51512	51471	108.93	Positive	
3	Negative (-) Control	782	805	793.5	116	110	113	0.14	Negative	

