

Thaw and Culture Details

Cell Line Name	STAN061i-164-1						
WiCell Lot Number	DB30984						
Provider	Stanford University – Laboratory of D	Stanford University – Laboratory of Dr. Marlene Rabinovitch					
Banked By	Stanford University – Laboratory of D	r. Marlene Rabinovitch					
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial int ROCK Inhibitor for best results.	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: E8						
	Matrix: Matrigel®	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	26-October-2015						
Vial Label	10/26/2015 E 164 D####################################						
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
Post-Thaw Viable Cell WiCell		SOP-CH-305	Recoverable attachment after	Pass
Recovery			passage	
Identity by STR	UW Translational	PowerPlex 16 HS	Defines profile	Pass
	Research Initiatives in	System by		
	Pathology Laboratory	Promega		
Sterility	Biotest Laboratories	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass
Karyotype by G-banding	WiCell	SOP-CH-003	Report karyotype	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 (MEGAEX)

Approval Date	Quality Assurance Approval
21-September-2016	9/21,0016 X DEW DOW Quality Assumance Signed by Wilson Dustin



Short Tandem Repeat Analysis

WiCell® info@wicell.org (888) 204-1782

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular) http://www.pathology.wisc.edu/research/trip

Sample Report: 11808-STR

Sample Name on Tube: 11808-STR

42.5 ng/μL, (A260/280=1.66)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:WiCell Research Institute
Quality Department

Sample Date: N/A Receive Date: 09/12/16 Assay Date: 09/13/16

File Name: CALR STR 160915 SLE

Report Date: 09/15/16

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 WiCell's Technical
D16S539	5, 8-15	Support.
D7S820	6-14	<u> </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 11808-STR cells submitted by WiCell QA dated and received on 09/12/16, this sample (Label on Tube: 11808-STR) defines the STR profile of the human stem cell line STAN061i-164-1 comprising 29 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human STAN061i-164-1 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 11808-STR sample submitted corresponds to the STAN061i-164-1 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 09/15/16

X WMR Digitally Signed on 09/15/16

PhD, Director / Co-Director

TRIP Laboratory, Molecular

UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

Sterility Report

Biotest Laboratories, Inc.

Making life-saving products possible

WiCell Research Institute, WiCell Quality Assurance	Inc.		BIOTEST SAMPLE #	16082085	
VVICEN Staning 7.55stranec			VALIDATION #	NG	
			TEST PURPOSE	NG	
PRODUCT	DB30986 11791, STAN STAN058i-162-2 DB309	051i-146-1 DB3 72 11794, STA	N062i-164-2 DB30992 30981 11792, STAN060i- N059i-163-1 DB30975 1 311, UCSD010i-5-3 DB44	-163-2 DB30978 11793, 11795, WIC01i-02-1c WB42674	
PRODUCT LOT	NA				
STERILE LOT	NA		BI LOT	NA	
STERILIZATION LOT	NA		BI EXPIRATION DATE	NA	
STERILIZATION DATE	NA		DATE RECEIVED	2016-08-31	
STERILIZATION METHOD	NA		TEST INITIATED	2016-08-31	
SAMPLING BLDG / ROOM	NA		TEST COMPLETED 2016-09-14		
REFERENCE	Processed according	to LAB-003: S	terility Test Procedure		
				0 mL FTG. The sample was as monitored for a minimum	
	□ USP □ BI Manufacturers Sp □ Other	ecifications			
RESULTS No Growth	# POSITIVES 0	# TESTED 10	POSITIVE CONTRO NA	OL NEGATIVE CONTROL 2 Negatives	
COMMENTS NA			DATE _	165EP16	

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. Liability is limited to the costs of the tests. The uncertainty of measurement associated with the measurement result reported in this certificate is available from the organization upon request.

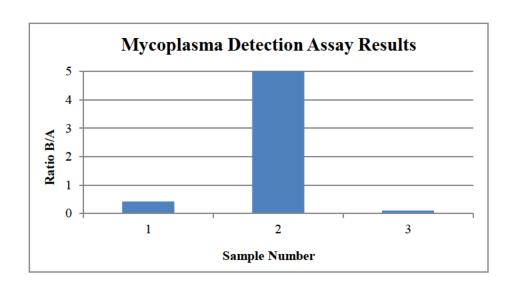
Biotest Laboratories = 9303 West Broadway Ave. = Brooklyn Park, MN 55445 = USA = (763) 315-1200



Mycoplasma Detection Assay Report

Testing Performed by WiCell Lot Release Test August 23, 2016 FORM SOP-QU-004.01 Version F Edition 01 Reported by: SM Reviewed by: JB Berthold Flash n' Glo 539

		Read	ing A	A	Read	ing B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	\mathbf{B}/\mathbf{A}	Result	Comments/Suggestions
1	STAN061i-164-1-DB30984 11808	90	88	89	39	36	37.5	0.42	Negative	
2	Positive (+) Control	1229	1221	1225	11416	11424	11420	9.32	Positive	
3	Negative (-) Control	195	197	196	19	19	19	0.10	Negative	





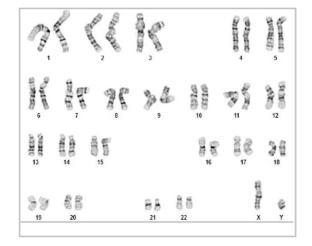
Chromosome Analysis Report: 045343

Date Reported: Friday, September 16, 2016 Cell Line: STAN061i-164-1-DB30984 11808

Passage#: 13

Date of Sample: 8/31/2016

Specimen: iPSC Results: 46,XY



Cell Line Gender: Male

Reason for Testing: lot release testing

Investigator: WiCell

Cell: 36 Slide: 2

Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8

Total Karyogrammed: 4
Band Resolution: 425 - 475

QC Review By:

Interpretation:

Date:

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, FACMO

Sent By:

A signed copy of this report is available upon request.

Director of the WiCell Cytogenetics Laboratory.

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Limitations: Thi	is assay allows for m	icroscopic visualization of	f numerical and structural	chromosome abnormalities.	The size of struc	ctural abnormality that	can be detected
is >3-10Mb, de	pendent upon the G-	band resolution obtained	from this specimen. For the	he purposes of this report, ba	and level is defin	ed as the number of G	-bands per
haploid genome	e. It is documented h	ere as "band level", i.e., ti	he range of bands determ	ined from the four karvogran	ns in this assav.	Detection of heteroge	neity of clonal

Sent To:

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 may not be relied upon by any other party without the prior written consent of the Director of the WiCell Cytogenetics Laboratory. The results of this assay are for research use only. If the results of this assay are to be used for any other purpose, contact the

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