

Thaw and Culture Details

Cell Line Name	WISC011i-inGFPpuro					
WiCell Lot Number	WB66670					
Provider	University of Wisconsin – Dr. Igor Slukvin					
Banked By	WiCell					
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate.					
Culture Platform	Feeder Independent					
	Medium: mTeSR™1					
	Matrix: Matrigel®					
Protocol	WiCell Feeder Independent mTeSR™1 Protocol					
Passage Number	p46 Cells were modified from iPS DF19-9-7T at passage 37. These cells were cultured for 8 passages post modification and prior to freeze. WiCell adds +1 to the passage number at freeze to best represent the overall passage number of the cells at thaw. Plated cells at thaw should be labeled passage 46.					
Date Vialed	14-NOVEMBER-2017					
Vial Label	WISC011i-inGFPpuro p9 WB66670					
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	≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and 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
Expression of Reporter Proteins	WiCell	SOP-CH-032	Expression of reporter proteins reported	Pass

Approval Date	Quality Assurance Approval
18-May-2018	5/18/2018 X JKG JKG Quality Assurance Signed by Gay, Jenna



Chromosome Analysis Report: 069630

Date Reported:	Thursday, December 07,	Cell Line Gender: Male
-	2017	

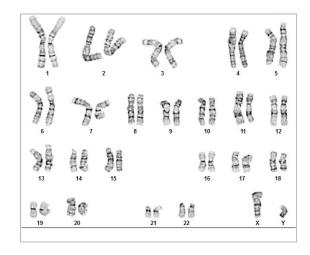
Cell Line: WISC011i-inGFPpuro-WB66670 Reason for Testing: lot release testing

13136

Passage#: 9

Date of Sample: 12/4/2017 Investigator: , WiCell CDM Specimen: Human IPSC

Results: 46,XY



Cell: 49 Slide: G02

Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 450 - 575

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

A signed copy of this report is available upon request.

Date:	Sent By:	Sent To:	QC Review By:
Limitations: This assay allows for micro	osconic visualization of numerical and	structural chromosome abnormalities	The size of structural abnormality that can be detected

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 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 Director of the WiCell Cytogenetics Laboratory.

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Short Tandem Repeat Analysis

HISTOLOGY - IHC - MOLECULAR - IMAGING

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular)

http://www.pathology.wisc.edu/research/trip

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

Sample Report:

13136-STR

Sample Name on Tube: 13136-STR

98.7 ng/ μ L, (A260/280=1.94)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute Quality Department Sample Date: N/A Receive Date: 12/11/17 Assay Date: 12/12/17

File Name: STR 171213 wmr

Report Date: 12/15/17

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
TPOX	6-13	information has
D8S1179	7-18	been redacted to
vWA	10-22	protect donorconfidentiality. 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 13136-STR cells submitted by WiCell QA dated and received on 12/11/17, this sample (Label on Tube: 13136-STR) defines the STR profile of the human stem cell line WISC011i-inGFPpuro comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human WISC011i-inGFPpuro 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 13136-STR sample submitted corresponds to the WISC011i-inGFPpuro 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 $\sim 2-5\%$.

X RMB Digitally Signed on 12/15/17

BA
TRIP Laboratory, Molecular

TRIP Laboratory, Molecular

New Digitally Signed on 12/15/17

New Digitally Signed on 12/15/17

WHR Digitally Signed on 12/15/17

Native Product Sterility Report



WiCell

504 S Rosa Rd., RM 101

Madison, WI 53719

CORRECTED

SAMPLE #:

17120390

DATE RECEIVED:

07-Dec-17

TEST INITIATED:

11-Dec-17

TEST COMPLETED:

26-Dec-17

SAMPLE NAME / DESCRIPTION:

UCSD125i-7-2 WB66673 13110 UCSD174i-18-2 WB66672 13111 UCSD177i-17-2 WB66671 13112 WISC011i-inGFPpuro WB66670 13113

WISC011i-inGFPpuro WB66670 131:
UCSD008i-44-1 WB66287 13114
UCSD006i-21-1 WB57101 13116
UCSD007i-21-2 WB54928 13117
UCSD013i-16-3 WB61874 13118
UCSD014i-21-3 WB55344 13119
UCSD022i-8-3 WB59011 13120
UCSD023i-8-4 WB58972 13121
UCSD024i-13-3 WB58691 13122
UCSD025i-13-4 WB63445 13123
UCSD026i-9-1 WB54736 13124
UCSD028i-9-3 WB54172 13125
UCSD029i-9-4 WB63527 13126

UCSD030i-23-2 WB58975 13127 UCSD031i-45-1 WB58276 13128 UCSD032i-41-1 WB64803 13129

UCSD085i-6-2 WB61664 13139

UNIQUE IDENTIFIER:

NA

PRODUCT REGISTRATION:

Human iPS Cells

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
20	0	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:

Processed according to LAB-003: Sterility Test Procedure

METHOD VALIDATION / PD #:

000053

STERIS Laboratories, Inc. 9303 West Broadway Ave Brooklyn Park, MN 55445 LAB-003 rev 30 Form 5 Effective: 2017-08-29 Page 1 of 2

Native Product Sterility Report



TEST METHODOLOGY:

USP - Direct Transfer

COMMENTS:

Report revised due to incorrect sample name/description.

REVIEWED BY

DATE STANG

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.

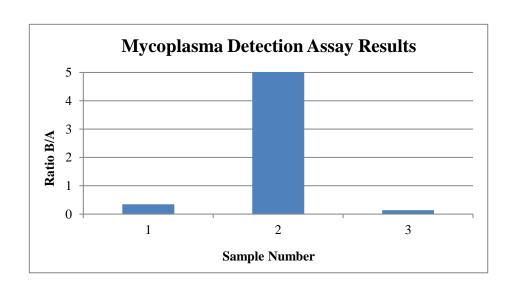


Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing December 07, 2017

FORM SOP-QU-004.01 Version G Edition 02 Reported by: KR Reviewed by: JB BD Monolight 180

		Read	ing A	A	Read	ing B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	WISC011-inGFPpuro-WB66670 13136	205	212	208.5	73	72	72.5	0.35	Negative	
2	Positive (+) Control	301	290	295.5	14865	15003	14934	50.54	Positive	
3	Negative (-) Control	473	467	470	68	63	65.5	0.14	Negative	



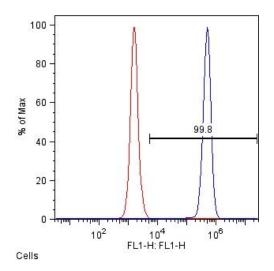


Flow Cytometry Verification of Reporter Protein Report

Cell Line-Lot Number	WISC011i-inGFPpuro-WB66670
Sample ID	13144
Passage Number	10
Reported By/Date	KR 10JAN18
QA Review By/Date	RK 11Jan18
Percent Positive for Reporter Protein	99.8%
Deviations from Procedure	⊠ N/A
Notes	⊠ N/A

Histogram Plot Indicating Positive Percentage of the Reporting Gene

Red peak is negative control population. Blue peak is test population.





Print Date: 11-Jan-18 Page 1 of 1