

Thaw and Culture Details

Cell Line Name	JFWT1
WiCell Lot Number	DB29747
Provider	Jain Foundation
Banked By	Cellular Dynamics International
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 1 well of a 6 well plate.
Culture Platform	Feeder Independent
	Medium: E8 Medium
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent E8 Medium Protocol
Passage Number	p11 These cells were cultured for 11 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	19-August-2014
Vial Label	MyCell® Products Cat #: iPSC Lot #: 01459.101.11 Passage #: 11 Storage Temp Liquid Nitrogen
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

		<u>, , , , , , , , , , , , , , , , , , , </u>							
Test Description Test Provider		Test Method	Test Specification	Result					
Karyotype by G-banding	WiCell	SOP-CH-003	Expected karyotype	Fail					
	chromosome 12 in si	Result from report: This is an abnormal karyotype. There is an extra copy of chromosome 12 in six of twenty cells examined. Trisomy 12 is a recurrent acquired abnormality in human pluripotent stem cell cultures. No other clonal abnormalities were found.							
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	Biotest Laboratories	ST/07	Negative	Pass					
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass					



Testing Reported by Provider

This testing was performed prior to banking unless otherwise specified.

Test Description	Method	Result
Genetic Analysis	Karyotype by G-Banding	Normal Karyotype
Pluripotency	Multiplex RT-PCR to quantify endogenous expression of 7 genes. Scores generated from the analysis predict probability samples are iPSC-like.	Passing sample score ≥0.9
Mycoplasma	Commercially available mycoplasma detection kit.	Negative
Human Virus Testing	HIV I/II CPT Code 87389; detects both antigen and antibodies for HIV I and HIV II. HBV CPT Code 87340; detects Hepatitis B surface antigen. HCV CPT Code 86803; Immunoassay detects Hepatitis C antibody.	All cell lines from Jain Foundation tested negative for the following human viruses. HIV I HIV II HBV HCV
Identity	Multiplex STR analysis of 9 commonly used alleles.	Match of iPS cell line to incoming donor material.

Approval Date	Quality Assurance Approval			
21-December-2015	8.09/2017 X AMK AMK Quality Assurance Signed by Rudoc, Anjelica			



Chromosome Analysis Report: 061983

Date Reported: Monday, April 03, 2017

Cell Line: JFWT1-DB29747 12350

Passage#: 13

Date of Sample: 3/28/2017

Specimen: iPSC

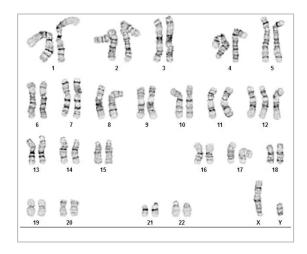
Results: 47,XY,+12[6]/46,XY[14]

Cell Line Gender: Male

Reason for Testing: lot release testing

Investigator:

WiCell CDM



Cell: 17 Slide: 2

Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8

Total Karyogrammed: 4
Band Resolution: 425 - 525

Interpretation:

This is an abnormal karyotype. There is an extra copy of chromosome 12 in six of twenty cells examined. Trisomy 12 is a recurrent acquired abnormality in human pluripotent stem cell cultures. No other clonal abnormalities were found.

Completed by: Reviewed and Interpreted by: , CG(ASCP)

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 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

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: 12350-STR

Sample Name on Tube: 12350-STR

 $96.0 \text{ ng/}\mu\text{L}$, (A260/280=2.06)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute Ouality Department **Sample Date:** N/A **Receive Date:** 04/03/17

Assav Date: 04/04/17

File Name: STR 170405 wmr

Report Date: 04/06/07

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 12350-STR cells submitted by WiCell QA dated and received on 04/03/17, this sample (Label on Tube: 12350-STR) defines the STR profile of the human stem cell line JFWT1 comprising 24 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human JFWT1 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 12350-STR sample submitted corresponds to the JFWT1 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	04/07/17	X WMR	Digitally Signed on	04/07/17
TRIP Laboratory, Molecular		UWHC Mole	, PhD, Director / Co-Direct cular Diagnostics Laboratory / UW		

Sterility Report

Biotest Laboratories, Inc.

Making life-saving products possible

WiCell Research Institute, Inc. WiCell Quality Assurance

504 South Rosa Road, Room 101

Madison, WI 53719

BIOTEST SAMPLE # 16030994

VALIDATION #

NG

TEST PURPOSE

NG

PRODUCT

JFHZ1-DB29764 11562, JFWT3-DB29759 11563, JFWT2-DB29754 11564, JFWT1-DB29747 11565, JFMD3-DB29742 11566, JFMD5-DB29737 11567, JFMD4-DB29732 11568, JFMD2-DB29701 11569, JFMD1-DB29711 11570,

JFRBi4-DB29689 11571

PRODUCT LOT

NA

STERILE LOT

NA

BILOT

NA

STERILIZATION LOT

NA

BI EXPIRATION DATE NA

STERILIZATION DATE

NA

DATE RECEIVED

2016-03-10

STERILIZATION METHOD NA

TEST INITIATED

2016-03-15

SAMPLING BLDG / ROOM NA

TEST COMPLETED

2016-03-29

REFERENCE

Processed according to LAB-003: Sterility Test Procedure

Ten (10) products were each divided between 40 mL TSB and 40 mL FTG. The samples were then cultured at 20-25 C and 30-35 C respectively and were monitored for a

minimum of 14 days.

⊠ USP

□ BI Manufacturers Specifications

☐ Other

RESULTS Non-Sterile

POSITIVES

TESTED

10

POSITIVE CONTROL

NEGATIVE CONTROL

NA

2 Negatives

Sample labeled as JFMD2-DB29701 11569 had growth in TSB/FTG.

DATE 30MHR16

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.

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



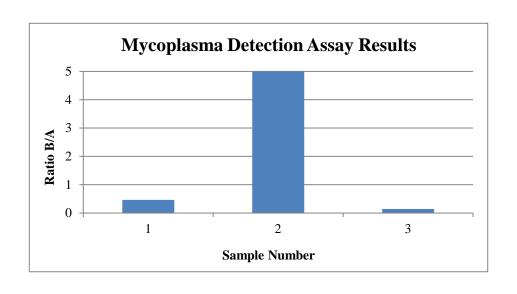


Mycoplasma Detection Assay Report Testing Performed by WiCell

Pesting Performed by WiCell Lot Release March 22, 2017

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

		Read	ing A	A	Read	ling B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	JFWT1-DB29747 12350	222	228	225	107	103	105	0.47	Negative	
2	Positive (+) Control	339	332	335.5	42524	42961	42743	127.40	Positive	
3	Negative (-) Control	463	469	466	69	65	67	0.14	Negative	





Testing Reported by Provider

The testing reports following this placeholder are described on the certificate of analysis found in the beginning of this packet.



Chromosome Analysis Report: 014915

Date Reported: Wednesday, August 13, 2014 Cell Line Gender: Male Cell Line: VIH0036 Reason for Testing: Routine testing Passage#: 8 Date of Sample: 8/5/2014 Investigator: Specimen: iPSC Results: 46,XY Cell: 46 Slide: 4 Slide Type: Karyotype Total Counted: 20 Total Analyzed: 8 Total Karyotyped: 4 Band Resolution: 450 - 525 Interpretation: This is a normal karyotype. No clonal abnormalities were detected at the stated band level of resolution. Completed by: MS, CG(ASCP) , PhD, FACMG Reviewed and Interpreted by: A signed copy of this report is available upon request.

A signed copy of this report is available apoil request.

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

QC Review By:

Sent By: 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".

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