

Thaw and Culture Details

Cell Line Name	JFWT3
WiCell Lot Number	DB29759
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	18-August-2014
Vial Label	MyCell® Products Cat #: iPSC Lot #: 01459.103.11 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

Test Description	Test Provider	Test Method	Test Specification	Result	
Karyotype by G-banding	WiCell	SOP-CH-003	Expected karyotype	Fail	
	of twenty cells that w	vere examined). The my 8) and an extra ed abnormalities in	karyotype. There is one abno e cells in this clone have an ex chromosome 12 (trisomy 12). human pluripotent stem cell	ktra Both trisomies	
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.		Donor samples 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	8.99,0017 X AMK AMK Quality Assurance Signed by Mate, Anjelica		



Chromosome Analysis Report: 062297

Date Reported: Thursday, April 06, 2017

Cell Line: JFWT3-DB29759 12348

Passage#: 13

Date of Sample: 3/31/2017

Specimen: iPSC

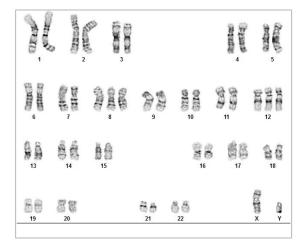
Results: 48,XY,+8,+12[10]/46,XY[10]

Cell Line Gender: Male

Reason for Testing: Lot release testing

Investigator:

, WiCell CDM



Cell: 39 Slide: 2

Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8

Total Karyogrammed: 4
Band Resolution: 400 - 450

Interpretation:

This is an abnormal karyotype. There is one abnormal clone (ten of twenty cells that were examined). The cells in this clone have an extra chromosome 8 (trisomy 8) and an extra chromosome 12 (trisomy 12). Both trisomies are recurrent, acquired abnormalities in human pluripotent stem cell cultures. No other clonal abnormalities were found.

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

12348-STR Sample Name on Tube: 12348-STR

 $65.4 \text{ ng/}\mu\text{L}$, (A260/280=2.02)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute
Ouality Department

Sample Date: N/A **Receive Date:** 04/03/17

Assay Date: 04/04/17 **File Name:** STR 170405 wmr

Report Date: 04/06/17

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 information has
TPOX	6-13	been redacted to
D8S1179	7-18	protect donor
vWA	10-22	confidentiality. It
Amelogenin	X,Y	more information
Penta D	2.2, 3.2, 5, 7-17	is required,
CSF1PO	6-15	please, contactWiCell's Technic
D16S539	5, 8-15	Support.
D7S820	6-14	Сиррога.
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 12348-STR cells submitted by WiCell QA dated and received on 04/03/17, this sample (Label on Tube: 12348-STR) defines the STR profile of the human stem cell line JFWT3 comprising 24 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human JFWT3 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 12348-STR sample submitted corresponds to the JFWT3 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 La	boratory, Molecular	UWHC Mole	, PhD, Director / Co-Director cular Diagnostics Laboratory / UWSMPH TRIP Laborato	ory

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

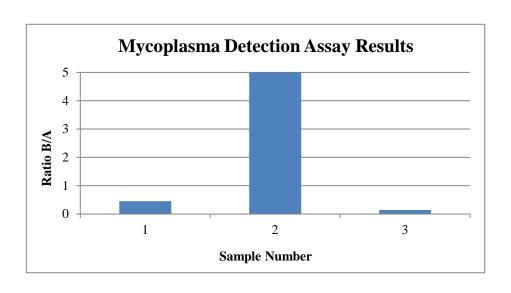




Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCe 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	JFWT3-DB29759 12348	201	213	207	97	91	94	0.45	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	





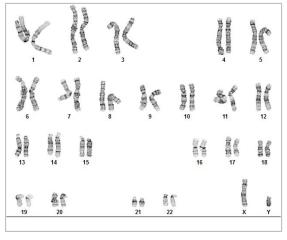
Testing Reported by Provider

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



Chromosome Analysis Report: 014916

Date Reported: Wednesday, August 13, 2014
Cell Line: VIH0037
Reason for Testing: routine testing
Passage#: 8
Date of Sample: 8/5/2014
Specimen: iPSC
Results: 46,XY



Cell: 7 Slide: 2

Slide Type: Karyotype

Total Counted: 20 Total Analyzed: 8 Total Karyotyped: 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 conv of this report is available upon request					

Date:	Sent Bv:	Sent To:	QC Review By:
Buto:	Oon Dy	Oone 10:	40 Nonon 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".

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