

Thaw and Culture Details

Cell Line Name	WISCi004-A-2						
WiCell Lot Number	DB46585						
Provider	Brigham & Women's Hospital – Dr. Tracy Young-Pearse						
Banked By	Brigham & Women's Hospital – Dr. Tracy Young-Pearse						
Thaw and Culture Recommendations	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 Dependent						
	Medium: iPS Medium (similiar to WiCell cKOSR Medium)						
	Matrix: MEF						
Protocol	WiCell Feeder Dependent Protocol						
Passage Number p110 These cells were cultured for 109 passages after colony picking. The provider adds +1 to the passage number to best represent the overall passage number of the cells at thaw.							
Date Vialed	25-February-2016						
Vial Label	YZ1 WT v2.11 P110 2.25.16						
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					
Result from report: There appears to be an interstitial duplication in the long arm of chromosome 20 in thirteen of twenty cells examined. There is a known recurrent acquired duplication at this location in human pluripotent stem cell cultures; we recommend that this potential abnormality be confirmed by higher resolution (fluorescence insitu hybridization—FISH) testing. No other clonal defined 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		Defines profile	Pass					
Sterility	Biotest Laboratories	ST/07	Negative	Pass					
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass					



Testing Reported by Provider

The Provider stated that some or all of the additional analyses 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.

- Expression of Nanog, Oct4, SSEA4, Sox2, and TRA-1-60 by immunostaining

Test Description	Method	Result
Genetic Analysis	G-Band Karyotype	Normal

Approval Date	Quality Assurance Approval			
22-September-2016	8,932017 X AMK AMK Quality Assurance Signed by Klade, Anjelica			



Chromosome Analysis Report: 058502

Date Reported: Thursday, February 02, 2017

Cell Line: WISCi004-A-2-DB46585 12180

Passage#: 110

Date of Sample: 1/27/2017

Specimen: iPSC

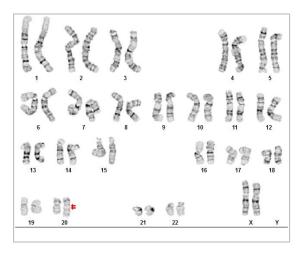
Results: 46,XX,?dup(20)(q11.2q11.2)[13]/46,XX[7]

Cell Line Gender: Female

Reason for Testing: Lot release testing

Investigator:

, WiCell CDM



Cell: 33 Slide: 3

Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 9

Total Karyogrammed: 5
Band Resolution: 425 - 475

Interpretation:

There appears to be an interstitial duplication in the long arm of chromosome 20 in thirteen of twenty cells examined. There is a known recurrent acquired duplication at this location in human pluripotent stem cell cultures; we recommend that this potential abnormality be confirmed by higher resolution (fluorescence in situ hybridization—FISH) testing. No other clonal defined abnormalities were found.

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

A signed copy of this report is available upon 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 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.

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.



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: 12180-STR

Sample Name on Tube: 12180-STR

 $50.5 \text{ ng/}\mu\text{L}$, (A260/280=1.94)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute Ouality Department Sample Date: N/A Receive Date: 03/20/17

Assav Date: 03/21/17

File Name: STR 170322 wmr

Report Date: 03/24/17

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.
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	опрота
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 12180-STR cells submitted by WiCell QA dated and received on 03/20/17, this sample (Label on Tube: 12180-STR) defines the STR profile of the human stem cell line WISCi004-A-2 comprising 28 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human WISCi004-A-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 12180-STR sample submitted corresponds to the WISCi004-A-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 03/24/17	X WMR	Digitally Signed on 03/24/17
TRIP La	boratory, Molecular	UWHC Molecu	, PhD, Director / Co-Director ular Diagnostics Laboratory / UWSMPH TRIP Laborator

Sterility Report

Biotest Laboratories, Inc.

Making life-saving products possible

WiCell Research Institute, Inc.

BIOTEST SAMPLE #

17010571

WiCell Quality Assurance

504 South Rosa Road, Room 101

VALIDATION #

NG

Madison, WI 53719

TEST PURPOSE

NG

PRODUCT

MIN15i-33363.D-WB53917 12106, PENN042i-258-12-DB34949 12107, PENN124i-28-3-DB34980 12108, PENN010i-486-2-DB34783 12109, PENN011i-719-2-DB34753 12110, PENN090i-111-4-DB34793 12111, WISCi004-A-1-DB46582 12112, WISCi004-A-2-DB46585 12113, WISCi004-A-3-DB46588 12114, WISCi004-A-4-DB46591 12115

PRODUCT LOT

STERILE LOT

NA

NA

BLLOT

NA

STERILIZATION LOT

NA

BI EXPIRATION DATE NA

2017-01-10

STERILIZATION DATE

NA

DATE RECEIVED **TEST INITIATED**

2017-01-16

STERILIZATION METHOD NA SAMPLING BLDG / ROOM NA

TEST COMPLETED

2017-01-30

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 Sterile # POSITIVES 0

TESTED 10

POSITIVE CONTROL

NA

NEGATIVE CONTROL

2 Negatives

COMMENTS

REVIEWED BY

DATE 02 FEBIT

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.



Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing January 9, 2017

FORM SOP-QU-004.01 Version F Edition 02 Reported by: OG 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	B/A	Result	Comments/Suggestions
1	WISCi004-A-2-DB46585 12121	179	172	175.5	57	60	58.5	0.33	Negative	
2	Positive (+) Control	174	167	170.5	12268	12252	12260	71.91	Positive	
3	Negative (-) Control	336	319	327.5	33	30	31.5	0.10	Negative	

