




Certificate of Analysis

Thaw and Culture Details

Cell Line Name	WC-24-02-DS-C	
WiCell Lot Number	WB68529	
Parent Material	WC-24-02-DS-C-WB18862	
Provider/Client	University of Wisconsin – Dr. Anita Bhattacharyya	
Banked By	WiCell	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate using mTeSR™ 1 and Cultrex®.	
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol	
Culture Platform Prior to Freeze	Medium: mTeSR™ 1	Matrix: Cultrex®
Passage Number	p23 Cells were cultured for 22 passages prior to freeze. Plated cells at thaw should be labeled passage 23.	
Date Viald	08-July-2024	
Vial Label	WC-24-02-DS-C p23 WB68529 Store at -135C or colder Made in United States Research Use Only 	
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.	



Certificate of Analysis

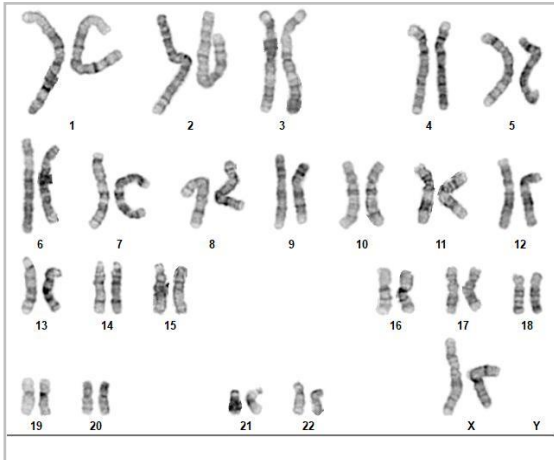
Results

Test Description	Test Provider	Test Method	Test Specification	Result
Karyotype	WiCell	G-T-L Banding performed on 20 metaphase cells	Expected karyotype	See Report
	Results: 46,XX Interpretation: This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution.			
Post-Thaw Viable Cell Recovery	WiCell	Thaw using specified Thaw & Culture Recommendations	≥ 15 Undifferentiated Colonies prior to passage, ≤ 30% Differentiation prior to passage, and recoverable attachment after passage	Pass
Identity by STR	WiCell	PowerPlex 16 HS System by Promega™	Consistent with STR profile of deposited cell line	See Report
Mycoplasma	WiCell	PCR	Amplification of mycoplasma specific DNA detected with negative result	Pass
Sterility	Steris	Native Product Direct Transfer using FTM and TSB (ST/07)	Negative for growth following 14 days of culture	Pass

Approval Date	WiCell Quality Assurance Approval
11-September-2024	<div>9/11/2024</div> <div>X HEB</div> <div>HEB</div> <div>WiCell Quality Assurance</div> <div>Signed by: Bruner, Haley</div>

Date Reported: July 27, 2024
Cell Line: WC-24-02-DS-C-WB68529
Submitted Passage #: 23
Date of Sample: 7/19/2024
Specimen: Human IPSC
Results: 46,XX

Cell Line Sex: Female
Reason for Testing: LOT_RELEASE
Investigator: WiCell Stem Cell Bank, WiCell



Cell: 24
Slide: G03
Slide Type: Karyotype
Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 425 - 475

Interpretation:

This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution.

Completed by: Timm Gonzales, CG(ASCP)
Reviewed and Interpreted by: Justin Schleede, PhD, FACMG

For internal use only

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 of this assay are for research use only. 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

Requestor: WiCell Stem Cell Bank, WiCell

Sample Receipt Date: 19Jul24

STR Amplification Date: 25Jul24

Form SOP-89.01

Version 13.0

Sample Name	hiPSC-Di21-c2-4-4-WB68528 p44	WC-24-02-DS-C-WB68529 p23
WiCell CTR No. ¹	103131	103130
FGA	Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact info@wicell.org	
TPOX		
D8S1179		
vWA		
Amelogenin		
Penta_D		
CSF1PO		
D16S539		
D7S820		
D13S317		
D5S818		
Penta_E		
D18S51		
D21S11		
TH01		
D3S1358		
Allelic Polymorphisms	27	26
Matches ²	See Results	See Results
Comments		

¹ CTR No.: Characterization Test Request Number; also known as a laboratory accessioning number.

² The STR profile of the sample(s) listed are a 100% match for the given sample unless otherwise specified.



Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell

Sample Receipt Date: 19Jul24

STR Amplification Date: 25Jul24

Form SOP-89.01

Version 13.0

Assay Description: Short Tandem Repeat (STR) analysis is performed using the PowerPlex® 16 HS System by Promega™. Results are reported as 13 CODIS STR markers, Amelogenin for sex determination and two low-stutter, highly discriminating pentanucleotide STR markers.

Results: The genotypic profiles comprise a range of 26-27 allelic polymorphisms across the 15 STR loci analyzed. Sample 103131 is a 93.75% match to 102801, 77506, 77346, and a 100% match to 101669, 77901, and 77505. Sample 103130 is a 93.33% match to 102657, 102115, 101953, 101596, 92525, 19247, and a 100% match to 95322, 19124, 18975, 18976 and additional profiles. Additional matches can be provided upon request.

Interpretation: 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. These results suggest that the cells submitted correspond to the cell lines as named and were not contaminated with any other human cells or a significant amount of mouse feeder layer cells.

Sensitivity: Sensitivity limits for detection of STR polymorphisms unique to either this or other human cell lines is ~2-4%.

7/31/2024	7/31/2024	7/31/2024
<div>X Julia Graham</div>	<div>X Kaylie Petersen</div>	<div>X Hunter Hefti</div>
Tech #1 Characterization Signed by: Graham, Julia	Tech #2 Characterization Signed by: Petersen, Kaylie	QA Review Quality Assurance Signed by: Hefti, Hunter

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Mycoplasma Assay Report

PCR-based assay performed by WiCell
WiCell Stem Cell Bank, WiCell
24Jul24

Form SOP-83.01
Version 6.0

Sample Name	Result	Interpretation
hIPSC-Di21-c2-4-4-WB68528 p44 (103131)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
WC-24-02-DS-C-WB68529 p23 (103130)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Assay Description

Sample is tested for presence of mycoplasma using EZ-PCR™ Mycoplasma Detection Kit (Sartorius).

7/24/2024	7/24/2024	7/26/2024
X Michael Mussar	X Nina Montgomery	X Hunter Hefti
Tech #1	Tech #2	QA Review
Characterization	Characterization	Quality Assurance
Signed by: Mussar, Michael	Signed by: Montgomery, Nina	Signed by: Hefti, Hunter

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A gel image is available upon request.

Native Product Sterility Report



Accounting@wicell.org
504 S Rosa Road, Rm 101
Madison, WI 53719

SAMPLE #: 24080476
DATE RECEIVED: 15-Aug-24
TEST INITIATED: 16-Aug-24
TEST COMPLETED: 30-Aug-24

SAMPLE NAME / DESCRIPTION: WC030i-5907-2-WB68495
hiPSC-Tri21-c2-4-WB68517
WC-24-02-DS-A-WB68530
WC-24-02-DS-C-WB68529
hiPSC-Di21-c2-4-4-WB68528
STAN381i-652C1-DB44674
STAN380i-092C2-DB44671
STAN379i-783C6-DB44668
STAN377i-572C5-DB44662
STAN375i-961C1-DB44656
STAN374i-565C4-DB44653
STAN373i-412C4-DB44650
STAN372i-411C8-DB44647
STAN370i-190C3-DB44524

UNIQUE IDENTIFIER: N/A

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
14	3	2 Negatives

TEST SUMMARY:

# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
14	TSB	40	20-25	14
14	FTG	40	30-35	14

REFERENCE: Processed according to LAB-003: Sterility Test Procedure

PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

Native Product Sterility Report



COMMENTS: Sample labeled as ISMMS 565i C4 P11 PEC 042016 positive in both media and samples labeled as ISMMS 411i C8 P15 PEC 060316 and ISMMS 961i C1 P10 PEC 060316 positive in TSB

Sample 24080476

AUTHORIZED BY

A handwritten signature in blue ink, appearing to be "AR", written over a horizontal line.

DATE

03 SEP 2024

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. Results applied to samples as received.