Certificate of Analysis

Thaw and Culture Details

Cell Line Name	**UWWC1-DS2U**	
WiCell Lot Number	**WB67907**	
Parent Material	UWWC1-DS2U-WB19012	
Provider/Client	University of Wisconsin - Dr. Anita Bhattacharyya	
Banked By	WiCell	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 4 wells of a 6 well plate using mTeSR™Plus and Matrigel®.	
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol	
Culture Platform Prior to Freeze	Medium: mTeSR™Plus	Matrix: Matrigel®
Passage Number	p55 Cells were cultured for 54 passages prior to freeze. Plated cells at thaw should be labeled passage 55.	
Date Vialed	21-JUNE-2022	
Vial Label	UWWC1-DS2U p55 WB67907	
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,XY ***Interpretation:*** This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution. There is a nonclonal finding, listed above, which contains a chromosomal aberration (gain of chromosome Y) recurrently acquired in pluripotent stem cell cultures. An additional twenty cells were examined for this chromosomal aberration; it was not observed. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.			
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

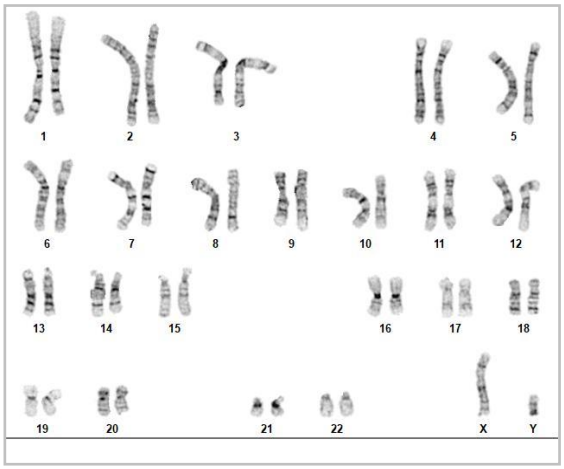
Approval Date	WiCell Quality Assurance Approval
04-August-2022	8/4/2022 X JKG JKG WiCell Quality Assurance Signed by: Gay, Jenna

Chromosome Analysis Report: 092696

Date Reported: Wednesday, July 6, 2022
Cell Line: UWWC1-DS2U-WB67907
Submitted Passage #: 55
Date of Sample: 6/30/2022
Specimen: Human IPSC
Results: 46,XY

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

Nonclonal findings: 47,XY,+Y



Cell: 30
Slide: G01
Slide Type: Karyotype

Total Counted: 40
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 475 - 600

Interpretation:

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

There is a nonclonal finding, listed above, which contains a chromosomal aberration (gain of chromosome Y) recurrently acquired in pluripotent stem cell cultures. An additional twenty cells were examined for this chromosomal aberration; it was not observed. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.

Completed by: Erica Schutter, CG(ASCP)
Reviewed and Interpreted by: Vanessa Horner, 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".

Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell
Samples Received: 30Jun22, 01Jul22
STR Amplification Date: 06Jul22

Sample Name	WC007i-FX13-2-WB67902 p25	WC026i-5807-3-WB67904 p12	UWWC1-DS2U-WB67907 p55	STAN088i-060C1-WB67908 p13
Label on tube	92694	92695	92696	92716
FGA	[redacted]			
TPOX				
D8S1179				
vWA				
Amelogenin				
Penta_D				
CSF1PO				
D16S539				
D7S820				
D13S317				
D5S818				
Penta_E				
D18S51				
D21S11				
TH01				
D3S1358				
Allelic Polymorphisms	25	27	29	30
Matches*	See Matches Comment	67690, 67701, 67790	17989, 71618(96.77%), 21511(93.75%)	80639
Comments				

Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact info@wicell.org

**Note: The STR profile of the following sample is an exact match for the given sample/samples.*

Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell
Samples Received: 30Jun22, 01Jul22
STR Amplification Date: 06Jul22

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

Results: The genotypic profiles comprise a range of 25-30 allelic polymorphisms across the 15 STR loci analyzed.

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 suggests 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 ~2-5%.

Matches: Sample 92694 is a 100% match to 89670, 80471, 75554, 73738, 72498, 72495, 72494, 72493, 72492, 72491 and additional profiles. Additional matches can be provided upon request.

7/7/2022 X Amber Kuhn Tech #1 Characterization Signed by: Kuhn, Amber	7/8/2022 X Molly Miles Tech #2 Characterization Signed by: Miles, Molly	7/8/2022 X Hunter Hefti QA Review Quality Assurance Signed by: Hefti, Hunter

Raw data is available upon request.

Mycoplasma Assay Report

PCR-based assay performed by WiCell
WiCell Stem Cell Bank, WiCell
01Jul22

Form SOP-83.01
Version 5.0

Sample Name	Result	Interpretation
WC007i-FX13-2-WB67902 p25 (92694)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
WC026i-5807-3-WB67904 p12 (92695)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
UWWC1-DS2U-WB67907 p55 (92696)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN088i-060C1-WB67908 p13 (92716)	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).

7/5/2022 X Kaylie Petersen Tech #1 Characterization Signed by: Petersen, Kaylie	7/6/2022 X Molly Miles Tech #2 Characterization Signed by: Miles, Molly	7/6/2022 X Hunter Hefti QA Review Quality Assurance Signed by: Hefti, Hunter

A gel image is available upon request.

Native Product Sterility Report

STERIS

SAMPLE #:	22070219
DATE RECEIVED:	07-Jul-22
TEST INITIATED:	14-Jul-22
TEST COMPLETED:	28-Jul-22

WiCell
504 S Rosa Road, Rm 101
Madison, WI 53719

SAMPLE NAME / DESCRIPTION:
SCRP0404i-WB67855
STAN088i-060C1-WB67908
UWWC1-DS2U-WB67907
STAN095i-102C4-WB67915
STAN164i-352C1-WB67917
STAN248i-617C1-WB67923
PENN057i-427-3-DB36428
PENN115i-316-1-DB34701
PENN170i-M17-4-DB36523
PENN117i-88-32-DB35152

UNIQUE IDENTIFIER: N/A

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	0	2 Negatives

TEST SUMMARY:

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

REFERENCE: Processed according to LAB-003: Sterility Test Procedure
PD #: 000053
TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: NA

REVIEWED BY _____ DATE 28 Jul 2022