

Certificate of Analysis

Thaw and Culture Details

Cell Line Name	WA09			
WiCell Lot Number	WB67844			
Parent Material	WA09-WB0090			
Provider/Client	University of Wisconsin – Laboratory of	Dr. James Thomson		
Banked By	WiCell			
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 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	p26 Cells were cultured for 25 passages prior to freeze. Plated cells at thaw should be labeled passage 26			
Date Vialed	16-February-2022			
Vial Label	WA09 p26 WB67844			
Biosafety and Use Information	WB67844 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			

The material provided under this certificate has been subjected to the tests specified and the results and data described herein are accurate based on WiCell's reasonable knowledge and belief. Appropriate Biosafety Level practices and universal precautions should always be used with this material. For clarity, the foregoing is governed solely by WiCell's Terms and Conditions of Service, which can be found at http://www.wicell.org/privacyandterms.



Certificate of Analysis

Results

Test Description	Test Provider	Test Method	Test Specification	Result
	WiCell	G-T-L Banding performed on 20 metaphase cells	Expected karyotype	See Report
Karyotype	Results: 46,XX <i>Interpretation:</i> T resolution.	his is a normal karyotype; no clonal abnorm	nalities were detected at the stated band leve	l of
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
20-April-2022	7/12/2023 X Ryen Smith Wicel Quality Assurance Signed by Smith, Ryen

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Chromosome Analysis Report: 090917

Date Reported: Friday, March 4, 2022 Cell Line: WA09-WB67844 Submitted Passage #: 26 Date of Sample: 3/2/2022 Specimen: Human ESC Results: 46,XX Cell Line Sex: Female Reason for Testing: LOT_RELEASE

Investigator: WiCell Stem Cell Bank, WiCell

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Cell: 43 Slide: G03 Slide Type: Karyotype Total Counted: 20 Total Analyzed: 8 Total Karyogrammed: 4 Band Resolution: 400 - 425

Interpretation:

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

Completed by: Reviewed and Interpreted by: Timm Gonzales, CG(ASCP) Vanessa Horner, PhD, FACMG

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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 or effect.



Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell Samples Received: 02Mar22, 08Mar22 STR Amplification Date: 09Mar22 Form SOP-89.01 Version 7.0

Sample Name	WA09- WB67844 p26	WA09- WB67843 p26	UCSD241i- APP2-3- WB67845 p21		
Label on tube	90917	90918	90998		
FGA	26, 28				
ΤΡΟΧ	10, 11				
D8S1179	8, 14				
vWA	17, 17				
Amelogenin	Х, Х				
Penta_D	9, 13	Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact info@wicell.org			
CSF1PO	11, 11				
D16S539	12, 13				
D7\$820	9, 11				
D13S317	9, 9				
D5S818	11, 12				
Penta_E	11, 14				
D18S51	13, 13				
D21S11	30, 30				
TH01	9.3, 9.3	_			
D3S1358	13, 16				
Allelic Polymorphisms	24	24	28		
Matches*	See Matches Comment	See Matches Comment	See Matches Comment		
Comments					

*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: 02Mar22, 08Mar22 STR Amplification Date: 09Mar22 Form SOP-89.01 Version 7.0

<u>Assay Description</u>: 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.

<u>Results:</u> The genotypic profiles comprise a range of 24-28 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation</u>: 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: Samples 90917 and 90918 are exact matches to each other and to 84476, 84477, 84552, 84553, 84656, 84930, 84931, 84932, 86113, 89607, and additional profiles. Additional matches can be provided upon request.

Matches: Sample 90998 is an exact match to 67074, 67101, 68023, 75167, 87113, 89245, 90282, 90283, and 90431.

3/10/2022	3/10/2022	3/11/2022
${\sf X}$ Hannah Rueth	X Amber Kuhn	X Dawn Graham
Tech #1 Characterization Signed by: Rueth, Hannah	Tech #2 Characterization Signed by: Kuhn, Amber	QA Review Quality Assurance Signed by: Graham, Dawn

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Raw data is available upon request.

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Mycoplasma Assay Report

PCR-based assay performed by WiCell WiCell Stem Cell Bank, WiCell 07Mar22

Sample Name	Result	Interpretation
WA09-WB67844 p26 (90917)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
WA09-WB67843 p26 (90918)	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).

3/7/2	022	3/8/2022		3/8/2022
${\sf X}$ Amber Kuhn	X Hannah Rueth		X Andy Arntz	
Tech #1 Characterization Signed by: Kuhn, Amber	Tech #2 Characterization Signed by: Rueth, Hannah		QA Review Quality Assurance Signed by: Amtz, Andy	

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A gel image is available upon request.

Native Product Sterility Report



22031046

17-Mar-22

28-Mar-22

11-Apr-22

SAMPLE #:

DATE RECEIVED:

TEST INITIATED:

TEST COMPLETED:

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

SAMPLE NAME / DESCRIPTION:

WA09-WB67843 WA09-WB67844 UCSD241i-APP2-3-WB67845 iPS(IMR90)-4-WB67846 iPS(IMR90)-4-WB67847 STAN158i-336C2-DB44540 STAN159i-336C3-DB44543 STAN122i-193C1-DB35800 STAN162i-345C2-DB38177 STAN121i-193C2-DB35803

UNIQUE IDENTIFIER:

TEST RESULTS:		# Positives	
	# Tested	(Growth)	- Control
	10	4	2 Negatives

N/A

CORRECTED

REPORT #2

TEST SUMMARY:

:	# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)	
	10	TSB	40	20-25	14	
	10	FTG	10	30-35	14	1

Processed according to LAB-003: Sterility Test Procedure

REFERENCE:

PD #:

TEST METHODOLOGY:

USP - Direct Transfer

000053

COMMENTS:

Report revised due to updated Sample Name/Description.

Corrected report revised due to updated comments.

Sample labeled STAN122i-193C1-DB35800 positive for TSB and FTG Sample labeled STAN121i-193C2-DB35803 positive for TSB and FTG

REVIEWED BY

DATE 18/4 PRODZZ

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.

STERIS 9303 West Broadway Ave Brooklyn Park, MN 55445

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