



Certificate of Analysis

Thaw and Culture Details

Cell Line Name	CVCL_C7V9	
WiCell Lot Number	WB69059	
Provider/Client	University of California - Berkeley – Dr. Dirk Hockemeyer	
Banked By	WiCell	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 1 well of a 6 well plate using iSCORE 01 medium and MEF. WiCell recommends thawing using ROCK Inhibitor for best results.	
Protocol	WiCell Feeder Based (MEF) Protocol 01 for Culture of MJFF iSCORE Lines	
Culture Platform Prior to Freeze	Medium: iSCORE 01 medium	Matrix: MEF
Passage Number	p50 Colony selection occurred at passage 26. Cells were cultured for 23 passages prior to freeze and post colony selection. Plated cells at thaw should be labeled passage 50.	
Date Viald	10-August-2025	
Vial Label	CVCL_C7V9 p50 WB69059 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

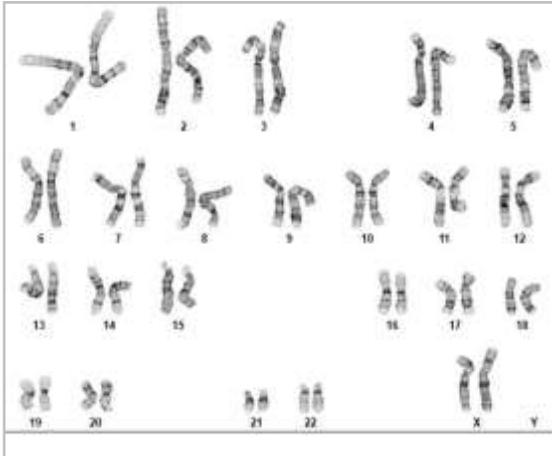
Test Description	Test Provider	Test Method	Test Specification	Result
Karyotype	WiCell	G-T-L Banding performed on 20 metaphase cells	Expected karyotype	See Report
	Results: 46,XX Interpretation: This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution.			
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™	Defines 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
29-January-2026	<div style="text-align: right;">1/29/2026</div>  <small>HEB WiCell Quality Assurance Signed by: Bruner, Haley</small>

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>.

Date Reported: October 03, 2025
Cell Line: CVCL_C7V9-WB69059
Submitted Passage #: 53
Date of Sample: 9/30/2025
Specimen: Human Modified ESC
Results: 46,XX

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



Cell: 54
Slide: G03
Slide Type: Karyotype
Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 350 - 450

Interpretation:

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

Completed by: Pam Mill
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

Form SOP-89.01
Version 15.0

Requestor: WiCell Stem Cell Bank, WiCell
Sample Receipt Date: 02Oct25, 01Oct25, 30Sep25, 16Sep25
STR Amplification Date: 06Oct25

Sample Name	CVCL_C7UW-WB69046 p55	BCHi018-A-9-DB68713 p12	CVCL_C7V9-WB69059 p53	BCHi014-A-10-WB69032 p17	BCHi020-A-5-DB68718 p13	BCHi018-A-11-DB68714 p12
WiCell CTR No. ¹	109380	109365	109332	109331	109320	109319
FGA	Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact info@wicell.org		22, 23	Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact info@wicell.org		
TPOX			8, 9			
D8S1179			11, 13			
vWA			14, 20			
Amelogenin			X, X			
Penta_D			9, 13			
CSF1PO			10, 12			
D16S539			11, 13			
D7S820			10, 11			
D13S317			11, 14			
D5S818			11, 12			
Penta_E			7, 18			
D18S51			16, 16			
D21S11			30, 32.2			
TH01	9.3, 9.3					
D3S1358	14, 17					
Allelic Polymorphisms	28	27	28	28	28	27
Matches ²	See Results	109319, 108890	See Results	108422, 108459, 108447		109365, 108890
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

Form SOP-89.01

Version 15.0

Requestor: WiCell Stem Cell Bank, WiCell

Sample Receipt Date: 02Oct25, 01Oct25, 30Sep25, 16Sep25

STR Amplification Date: 06Oct25

Sample Name	CVCL_C7VD-WB69009 p39
WiCell CTR No.¹	109139
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	28
Matches²	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

Form SOP-89.01
Version 15.0

Requestor: WiCell Stem Cell Bank, WiCell
Sample Receipt Date: 02Oct25, 01Oct25, 30Sep25, 16Sep25
STR Amplification Date: 06Oct25

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 27-28 allelic polymorphisms across the 15 STR loci analyzed. Samples 109380, 109332 and 109139 are a 100% match to each other and to 109232, 109197, 109158, 108996, 108982, 108953, 108864, 108863, 108862, 108861 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%.

10/9/2025	10/10/2025	10/9/2025
<p>X Amber Kuhn</p> <hr/> <p>Tech #1 Characterization Signed by: Kuhn, Amber</p>	<p>X Steph Dos Santos</p> <hr/> <p>Tech #2 Characterization Signed by: Dos Santos, Stephany</p>	<p>X Hunter Hefti</p> <hr/> <p>QA Review Quality Assurance Signed by: Hefti, Hunter</p>

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Mycoplasma Assay Report

PCR-based assay performed by WiCell
WiCell Stem Cell Bank, WiCell
01Oct25

Form SOP-83.01
Version 7.0

Sample Name	Result	Interpretation
CVCL C7V9-WB69059 p53 (109332)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
BCHi014-A-10-WB69032 p17 (109331)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
BCHi020-A-5-DB68718 p13 (109320)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
BCHi018-A-11-DB68714 p12 (109319)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 840 29Sep25 KH 1/1 (109315)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 845 29Sep25 KH 1/1 (109314)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 994 29Sep25 KH 1/1 (109313)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 994 29Sep25 NM 1/1 (109312)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 815 29Sep25 KC 1/1 (109311)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 994 29Sep25 KC 1/1 (109310)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 815 29Sep25 JG 1/1 (109309)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 994 29Sep25 JG 1/1 (109308)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 848 29Sep25 KC 1/1 (109307)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 815 29Sep25 NM 1/1 (109306)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 815 29Sep25 KH 1/1 (109305)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 995 29Sep25 NM 1/1 (109304)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Incubator 839 29Sep25 MEFs 1/1 (109303)	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).



Mycoplasma Assay Report

PCR-based assay performed by WiCell
WiCell Stem Cell Bank, WiCell
01Oct25

Form SOP-83.01
Version 7.0

<p style="text-align: right;">10/1/2025</p> <p>X <u>Steph Dos Santos</u></p> <p>Tech #1 Characterization Signed by: Dos Santos, Stephany</p>	<p style="text-align: right;">10/1/2025</p> <p>X <u>Amber Kuhn</u></p> <p>Tech #2 Characterization Signed by: Kuhn, Amber</p>	<p style="text-align: right;">10/2/2025</p> <p>X <u>Dawn Graham</u></p> <p>QA Review Quality Assurance Signed by: Graham, Dawn</p>
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Native Product Sterility Report



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

SAMPLE #: 25090688
DATE RECEIVED: 18-Sep-25
TEST INITIATED: 19-Sep-25
TEST COMPLETED: 03-Oct-25

SAMPLE NAME / DESCRIPTION: WA01-WB69058
WA01-WB69060
WA01-WB69061
CVCL_C7V9-WB69059
EIFIII001-A-WB69083
EIFIII002-A-WB69082
WC-24-02-DS-P-WB69081
STAN224i-514C3-WB69036
STAN336i-963C1-WB69031
STAN225i-514C4-WB69029
STAN337i-963C3-WB69030

UNIQUE IDENTIFIER: N/A

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
11	0	2 Negatives

TEST SUMMARY:

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

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

PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: NA

AUTHORIZED BY 

DATE 06 OCT 2025

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.