




# Certificate of Analysis

## Thaw and Culture Details

Cell Line Name	<b>CVCL_C7VD</b>	
WiCell Lot Number	<b>WB69009</b>	
Provider/Client	Albert Einstein College of Medicine – Dr. Frank Soldner	
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	p35 Colony selection occurred at passage 23. Cells were cultured for 11 passages prior to freeze and post colony selection. Plated cells at thaw should be labeled passage 35.	
Date Vialled	08-July-2025	
Vial Label	CVCL_C7VD p35 WB69009  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
	<b>Results:</b> 47,XX,+20[2]/46,XX[25] <b>Interpretation:</b> This is an abnormal karyotype. An extra copy of chromosome 20 (trisomy 20) is present in two of twenty-seven cells examined. Gain of chromosome 20 is recurrently acquired in pluripotent stem cell cultures. No other 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
30-December-2025	<div>12/30/2025</div> <div>X Jenna Gay</div> <div>Jenna Gay</div> <div>WiCell Quality Assurance</div> <div>Signed by Gay, Jenna</div>

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:** September 21, 2025

**Cell Line:** CVCL\_C7VD-WB69009

**Submitted Passage #:** 39

**Date of Sample:** 9/16/2025

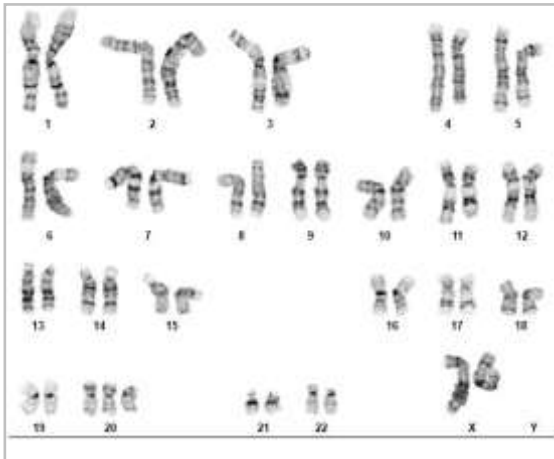
**Specimen:** Human Modified ESC

**Results:** 47,XX,+20[2]/46,XX[25]

**Cell Line Sex:** Female

**Reason for Testing:** LOT\_RELEASE

**Investigator:** WiCell Stem Cell Bank, WiCell



**Cell:** 62

**Slide:** G01

**Slide Type:** Karyotype

**Total Counted:** 27

**Total Analyzed:** 8

**Total Karyogrammed:** 4

**Band Resolution:** 400 - 475

## Interpretation:

**This is an abnormal karyotype. An extra copy of chromosome 20 (trisomy 20) is present in two of twenty-seven cells examined. Gain of chromosome 20 is recurrently acquired in pluripotent stem cell cultures. No other 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](http://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: 02Oct25, 01Oct25, 30Sep25, 16Sep25  
STR Amplification Date: 06Oct25

Form SOP-89.01  
Version 15.0

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. <sup>1</sup>	Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact <a href="mailto:info@wicell.org">info@wicell.org</a>					
FGA						
TPOX						
D8S1179						
vWA						
Amelogenin						
Penta_D						
CSF1PO						
D16S539						
D7S820						
D13S317						
D5S818						
Penta_E						
D18S51						
D21S11						
TH01						
D3S1358						
Allelic Polymorphisms	28	27	28	28	28	27
Matches <sup>2</sup>	See Results	109319, 108890	See Results	108422, 108459, 108447		109365, 108890
Comments						

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

<sup>2</sup> 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: 02Oct25, 01Oct25, 30Sep25, 16Sep25  
STR Amplification Date: 06Oct25

Form SOP-89.01  
Version 15.0

Sample Name	CVCL_C7VD-WB69009 p39
WiCell CTR No. <sup>1</sup>	Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact <a href="mailto:info@wicell.org">info@wicell.org</a>
FGA	
TPOX	
D8S1179	
vWA	
Amelogenin	
Penta_D	
CSF1PO	
D16S539	
D7S820	
D13S317	
D5S818	
Penta_E	
D18S51	
D21S11	
TH01	
D3S1358	
Allelic Polymorphisms	28
Matches <sup>2</sup>	See Results
Comments	

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

<sup>2</sup> 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: 02Oct25, 01Oct25, 30Sep25, 16Sep25  
STR Amplification Date: 06Oct25

Form SOP-89.01  
Version 15.0

**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 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
<div>X Amber Kuhn</div>	<div>X Steph Dos Santos</div>	<div>X Hunter Hefti</div>
Tech #1 Characterization Signed by: Kuhn, Amber	Tech #2 Characterization Signed by: Dos Santos, Stephany	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  
23Sep25

Form SOP-83.01  
Version 7.0

Sample Name	Result	Interpretation
WA01-WB69061 p23 (109171)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
PENN167i-M5-3-DB34994 p27 (109159)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
CVCL_C7UV-WB69028 p52 (109158)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
CVCL_C7VD-WB69009 p39 (109139)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
WA01-WB69058 p22 (109118)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
WA01-WB69060 p23 (109117)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
WA14-WB69050 p20 (109116)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
WC-24-02-DS-P-WB69081 p17 (109115)	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).

9/23/2025	9/24/2025	9/24/2025
<div>X Dylan Peters</div> <div>Tech #1 Characterization Signed by: Peters, Dylan</div>	<div>X Steph Dos Santos</div> <div>Tech #2 Characterization Signed by: Dos Santos, Stephany</div>	<div>X Dawn Graham</div> <div>QA Review Quality Assurance Signed by: Graham, Dawn</div>

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A gel image is available upon request.

# Native Product Sterility Report



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

## CORRECTED REPORT

SAMPLE #: 25080540  
DATE RECEIVED: 14-Aug-25  
TEST INITIATED: 15-Aug-25  
TEST COMPLETED: 29-Aug-25

SAMPLE NAME / DESCRIPTION:

CVCL\_C7VF-WB69010  
CVCL\_C7VD-WB69009  
BCHi014-A-9-WB69007  
CVCL\_C7VL-WB68996  
CVCL\_C7VG-WB68944  
CVCL\_C7VJ-WB69026  
CVCL\_C7UV-WB69028  
BCHi014-A-10-WB69032  
CVCL\_C7UX-WB69034  
CVCL\_C7UW-WB69046  
CVCL\_C7VI-WB69048  
WA14-WB69050  
EIFIIIi001-A-DB68807  
EIFIIIi002-A-DB68808  
PACSIi002-A-DB68805  
PACSIi003-A-DB68806

UNIQUE IDENTIFIER: N/A

### TEST RESULTS:

# Tested	# Positives (Growth)	- Control
16	0	2 Negatives

### TEST SUMMARY:

# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
16	TSB	40	20-25	14
16	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: Report revised due to updated Sample Name/Description information.

## CORRECTED REPORT

AUTHORIZED BY

Lee Vang

DATE

09 Oct 25

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.