




# Certificate of Analysis

## Thaw and Culture Details

Cell Line Name	<b>CVCL_C7VT</b>	
WiCell Lot Number	<b>WB69109</b>	
Provider/Client	University of California - Berkeley – Dr. Dirk Hockemeyer	
Banked By	WiCell	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 1 wells 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	p47 Colony selection occurred at passage 26. Cells were cultured for 20 passages prior to freeze post colony selection. Plated cells at thaw should be labeled passage 47.	
Date Viald	22-September-2025	
Vial Label	CVCL_C7VT p47 WB69109  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
	<p><b>Results:</b> 46,XX  <b>Interpretation:</b> This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution.</p>			
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
03-April-2026	<p style="text-align: right;">4/3/2026</p> <p>X HEB _____  <small>HEB            WiCell Quality Assurance            Signed by: Bruner, Haley</small></p>

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:** November 02, 2025

**Cell Line:** CVCL\_C7VT-WB69109

**Submitted Passage #:** 50

**Date of Sample:** 10/28/2025

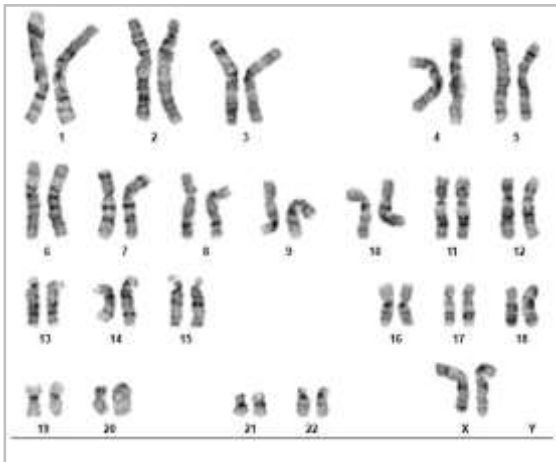
**Specimen:** Human Modified ESC

**Results:** 46,XX

**Cell Line Sex:** Female

**Reason for Testing:** LOT\_RELEASE

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



**Cell:** 32

**Slide:** G02

**Slide Type:** Karyotype

**Total Counted:** 20

**Total Analyzed:** 8

**Total Karyogrammed:** 4

**Band Resolution:** 400 - 450

**Interpretation:**

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

**Completed by:** Erica Schutter, 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](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

Form SOP-89.01  
Version 15.0

Requestor: WiCell Stem Cell Bank, WiCell  
Sample Receipt Date: 28Oct25, 27Oct25, 25Oct25, 13Oct25  
STR Amplification Date: 03Nov25

Sample Name	CVCL_C7VT-WB69109 p50	SUSL-073_C10-DB68962 p5	hIPSC-Di21-c2-4-3- WB69136 p56	hIPSC-Di21-c2-4-3- WB69135 p56	SUSL-047_C2-DB68949 p11
WiCell CTR No. <sup>1</sup>	109682	109669	109668	109667	109489
FGA	22, 23	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>			
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	24	27	27	26
Matches <sup>2</sup>	See Results	109661, 109660	109667, 107163, 103131, 102801 (93.75%), 101669, 77506 (93.75%), 77505, 77901, 77346 (93.75%)	109668, 107163, 103131, 102801 (93.75%), 101669, 77506 (93.75%), 77505, 77901, 77346 (93.75%)	109465, 109595, 109466 (96.67%)
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

Form SOP-89.01  
Version 15.0

Requestor: WiCell Stem Cell Bank, WiCell  
Sample Receipt Date: 28Oct25, 27Oct25, 25Oct25, 13Oct25  
STR Amplification Date: 03Nov25

**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 24 to 28 allelic polymorphisms across the 15 STR loci analyzed. Samples 109682 is a 100% match to 109577, 109490, 109407, 109139, 109380, 109332, 109197, 109232, 109158, 108776, 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%.

11/5/2025	11/5/2025	11/5/2025
<p><b>X</b> Steph Dos Santos</p> <hr/> <p>Tech #1 Characterization Signed by: Dos Santos, Stephany</p>	<p><b>X</b> Michael Mussar</p> <hr/> <p>Tech #2 Characterization Signed by: Mussar, Michael</p>	<p><b>X</b> Manda Weber</p> <hr/> <p>QA Review Quality Assurance Signed by: Weber, Manda</p>

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# Mycoplasma Assay Report

PCR-based assay performed by WiCell  
WiCell Stem Cell Bank, WiCell  
29Oct25

Form SOP-83.01  
Version 7.0

Sample Name	Result	Interpretation
CVCL_C7VT-WB69109 p50 (109682)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
hiPSC-Di21-c2-4-3-WB69136 p56 (109668)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
hiPSC-Di21-c2-4-3-WB69135 p56 (109667)	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).

10/29/2025	10/29/2025	10/30/2025
<b>X</b> Jacob Chow	<b>X</b> Amber Kuhn	<b>X</b> Manda Weber
Tech #1 Characterization Signed by: Chow, Jacob	Tech #2 Characterization Signed by: Kuhn, Amber	QA Review Quality Assurance Signed by: Weber, Manda

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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

SAMPLE #: 25100984  
DATE RECEIVED: 30-Oct-25  
TEST INITIATED: 31-Oct-25  
TEST COMPLETED: 14-Nov-25

SAMPLE NAME / DESCRIPTION: CVCL\_C7UZ-WB69110  
CVCL\_C7VF-WB69111  
CVCL\_C7VT-WB69109  
CVCL\_C7VT-WB69112  
hIPSC-Di21-c2-4-3-WB69135  
hIPSC-Di21-c2-4-3-WB69136  
JHU255i-WB69879  
STAN151i-303C3-WB69141  
STAN359i-442C11-WB69310  
SUSL-025\_C2-WB69132  
SUSL-025\_C6-WB69138  
SUSL-046\_C1-WB69114  
SUSL-046\_C2-WB69115  
SUSL-046\_C9-WB69134  
SUSL-047\_C2-WB69139  
SUSL-047\_C5-WB69133  
SUSL-047\_C8-WB69889  
WC-24-02-DS-B-WB69140  
WC-24-02-DS-B-WB69596  
ZFN 3.1-WB69971

UNIQUE IDENTIFIER: N/A

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
20	0	2 Negatives

TEST SUMMARY:

# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
20	TSB	40	20-25	14
20	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 #25100984

AUTHORIZED BY \_\_\_\_\_

A handwritten signature in blue ink, consisting of several overlapping loops and strokes, positioned above the signature line.

DATE 18 Nov 2023

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.