Certificate of Analysis

Thaw and Culture Details

Cell Line Name	**CVCL_C7VJ**	
WiCell Lot Number	**WB69026**	
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	p46 Colony selection occurred at passage 22. Cells were cultured for 23 passages prior to freeze and post colony selection. Plated cells at thaw should be labeled passage 46.	
Date Vialed	17-July-2025	
Vial Label	CVCL_C7VJ p46 WB69026 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 Nonclonal findings: 47,XX,+20 ***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 20) 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™	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

Certificate of Analysis

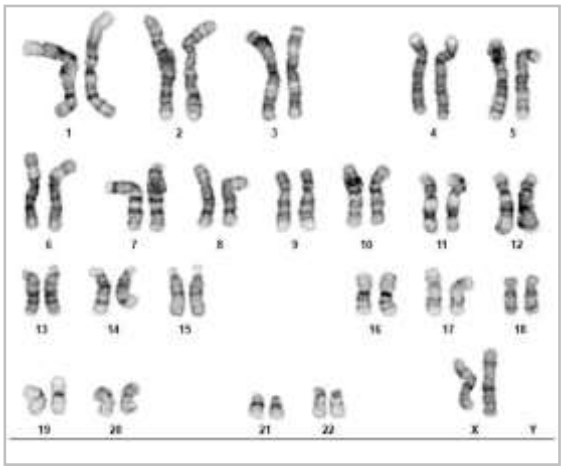
Approval Date	WiCell Quality Assurance Approval
05-January-2026	1/5/2026 X Jenna Gay Jenna Gay WiCell Quality Assurance Signed by: Gay, Jenna

Chromosome Analysis Report: 109232

Date Reported: September 28, 2025
Cell Line: CVCL_C7VJ-WB69026
Submitted Passage #: 49
Date of Sample: 9/23/2025
Specimen: Human Modified ESC
Results: 46,XX

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

Nonclonal findings: 47,XX,+20



Cell: 19
Slide: G04
Slide Type: Karyotype

Total Counted: 40
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 425 - 475

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 20) 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: Jennifer Pecos, 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".

Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell
Sample Receipt Date: 22Sep25, 23Sep25, 24Sep25, 19Sep25
STR Amplification Date: 03Oct25

Form SOP-89.01
Version 15.0

Sample Name	PENN159i-M14-4-DB36347 p19	PENN166i-M15-4-DB36113 p15	PENN162i-M14-11-DB36340 p20	CVCL_C7VJ-WB69026 p49	PENN139i-M5-4-DB35092 p29	CVCL_C7UX-WB69034 p49
WiCell CTR No.[1]	[redacted]					
FGA						
TPOX						
D8S1179						
vWA						
Amelogenin						
Penta_D						
CSF1PO						
D16S539						
D7S820						
D13S317						
D5S818						
Penta_E						
D18S51						
D21S11						
TH01						
D3S1358						
Allelic Polymorphisms	26	25	26	28	23	28
Matches[2]	109233		109247	See Results	109159	See Results
Comments						

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

[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

Requestor: WiCell Stem Cell Bank, WiCell
Sample Receipt Date: 22Sep25, 23Sep25, 24Sep25, 19Sep25
STR Amplification Date: 03Oct25

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 23-28 allelic polymorphisms across the 15 STR loci analyzed. Samples 109232 and 109197 are a 100% match to each other and to 109158, 108996, 108982, 108953, 108864, 108863, 108862, 108861, 108816, 108815, 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%.

10/6/2025	10/6/2025	10/8/2025
X Amber Kuhn	X Steph Dos Santos	X Hunter Hefti
Tech #1 Characterization Signed by: Kuhn, Amber	Tech #2 Characterization Signed by: Dos Santos, Stephany	QA Review Quality Assurance Signed by: Hefti, Hunter

Mycoplasma Assay Report

PCR-based assay performed by WiCell

WiCell Stem Cell Bank, WiCell

30Sep25

Form SOP-83.01
Version 7.0

Sample Name	Result	Interpretation
PENN159i-M14-4-DB36347 p19 (109247)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
PENN166i-M15-4-DB36113 p15 (109234)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
PENN162i-M14-11-DB36340 p20 (109233)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
CVCL_C7VJ-WB69026 p49 (109232)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
PENN139i-M5-4-DB35092 p29 (109221)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
CVCL_C7UX-WB69034 p49 (109197)	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).

9/30/2025 X Nina Montgomery Tech #1 Characterization Signed by: Montgomery, Nina	10/1/2025 X Steph Dos Santos Tech #2 Characterization Signed by: Dos Santos, Stephany	10/1/2025 X Dawn Graham QA Review Quality Assurance Signed by: Graham, Dawn

A gel image is available upon request.

Native Product Sterility Report

STERIS

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
PACSIIi002-A-DB68805
PACSIIi003-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

STERIS

COMMENTS: Report revised due to updated Sample Name/Description information.

CORRECTED
REPORT

AUTHORIZED BY Lee Vang DATE 09 Oct 25