Certificate of Analysis

Thaw and Culture Details

Cell Line Name	**CVCL_C7VX**	
WiCell Lot Number	**WB68985**	
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	p39 Colony selection occurred at passage 28. Cells were cultured for 10 passages prior to freeze and post colony selection. Plated cells at thaw should be labeled passage 39.	
Date Vialed	21-June-2025	
Vial Label	CVCL_C7VX p39 WB68985 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

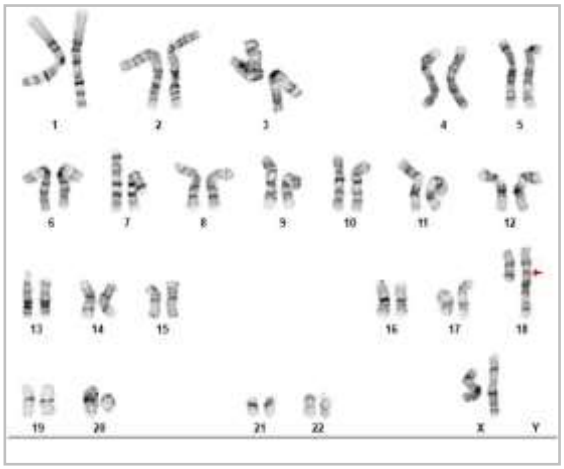
Test Description	Test Provider	Test Method	Test Specification	Result
Karyotype	WiCell	G-T-L Banding performed on 20 metaphase cells	Expected karyotype	See Report
	Results: 46,XX,der(18)t(5;18)(q11.2;q21.3)[3]/46,XX[16] Nonclonal findings: 46,XX,-12,+mar ***Interpretation:*** This is an abnormal karyotype. Three of twenty cells examined contain an unbalanced rearrangement of chromosome 18 in which an extra copy of the long (q) arm of chromosome 5 was translocated to the long arm of chromosome 18. The derivative chromosome 18 results in loss of chromosome 18q and gain of chromosome 5q. Loss of chromosome 18q is a recurrent acquired abnormality in pluripotent stem cell cultures. No other clonal abnormalities were detected at the stated band level of resolution. There is a nonclonal finding, listed above. 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

Approval Date	WiCell Quality Assurance Approval
02-January-2026	1/2/2026 X Jenna Gay Jenna Gay WiCell Quality Assurance Signed by: Gay, Jenna

Chromosome Analysis Report: 108864

Date Reported: September 02, 2025
Cell Line Sex: Female
Cell Line: CVCL_C7VX-WB68985
Reason for Testing: LOT_RELEASE
Submitted Passage #: 42
Date of Sample: 8/25/2025
Investigator: WiCell Stem Cell Bank, WiCell
Specimen: Human Modified ESC
Results: 46,XX,der(18)t(5;18)(q11.2;q21.3)[3]/46,XX[16]

Nonclonal findings: 46,XX,-12,+mar



Cell: 41
Slide: G01
Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 400 - 425

Interpretation:

This is an abnormal karyotype. Three of twenty cells examined contain an unbalanced rearrangement of chromosome 18 in which an extra copy of the long (q) arm of chromosome 5 was translocated to the long arm of chromosome 18. The derivative chromosome 18 results in loss of chromosome 18q and gain of chromosome 5q. Loss of chromosome 18q is a recurrent acquired abnormality in pluripotent stem cell cultures. No other clonal abnormalities were detected at the stated band level of resolution.

There is a nonclonal finding, listed above. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.

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".

Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell
Sample Receipt Date: 25Aug25, 22Aug25, 21Aug25, 19Aug25, 15Aug25, 26Aug25, 29Aug25
STR Amplification Date: 09Sep25

Sample Name	CVCL_C7VX-WB68985 p42	CVCL_C7VL-WB68996 p35	CVCL_D3YC-WB69004 p35	BCHi017-A-9-DB68710 p12	BCHi017-A-7-DB68709 p12	BCHi017-A-11-DB68711 p14
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	28	28	28	27	27	27
Matches[2]	See Results	See Results	See Results	108859, 108854	108860, 108854	108859, 108860
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: 25Aug25, 22Aug25, 21Aug25, 19Aug25, 15Aug25, 26Aug25, 29Aug25
STR Amplification Date: 09Sep25

Sample Name	BCHi016-A-3-DB68708 p20	BCHi016-A-1-DB68707 p18	WIBR3-S2-WB68916 p32	EIFIIIi002-A-DB68808 p8	CVCL_C7VP-WB68993 p32	WIBR3-WB69008 p33
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						
Matches[2]	108817	108818	See Results		See Results	See Results
Comments						

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

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[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: 25Aug25, 22Aug25, 21Aug25, 19Aug25, 15Aug25, 26Aug25, 29Aug25
STR Amplification Date: 09Sep25

Sample Name	BCHi019-A-11-DB68717 p14	BCHi019-A-9-DB68715 p13	BCHi018-A-7-DB68712 p12
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			
Matches[2]	108891	108892	
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: 25Aug25, 22Aug25, 21Aug25, 19Aug25, 15Aug25, 26Aug25, 29Aug25
STR Amplification Date: 09Sep25

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 26-28 allelic polymorphisms across the 15 STR loci analyzed. Samples 108863, 108953, 108780, 108776, 108861 and 108864 are a 100% match to each other and to 108862, 108816, 108815, 108777, 108755, 108624, 108613, 108572, 108571, 108531, 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%.

9/12/2025 X Amber Kuhn Tech #1 Characterization Signed by: Kuhn, Amber	9/16/2025 X Michael Mussar Tech #2 Characterization Signed by: Mussar, Michael	9/12/2025 X Dawn Graham QA Review Quality Assurance Signed by: Graham, Dawn

Mycoplasma Assay Report

PCR-based assay performed by WiCell

WiCell Stem Cell Bank, WiCell

26Aug25

Form SOP-83.01
Version 7.0

Sample Name	Result	Interpretation
CVCL_C7VX-WB68985 p42 (108864)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
CVCL_C7VL-WB68996 p35 (108863)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
CVCL_C7VW-WB68972 p41 (108862)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
CVCL_D3YC-WB69004 p35 (108861)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
BCHi017-A-9-DB68710 p12 (108860)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
BCHi017-A-7-DB68709 p12 (108859)	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).

8/26/2025 X StephDos Santos Tech #1 Characterization Signed by: Dos Santos, Stephany	8/26/2025 X Dylan Peters Tech #2 Characterization Signed by: Peters, Dylan	8/27/2025 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

SAMPLE #: 25070686
DATE RECEIVED: 24-Jul-25
TEST INITIATED: 25-Jul-25
TEST COMPLETED: 08-Aug-25

SAMPLE NAME / DESCRIPTION:
CVCL_C7VH-WB68975
CVCL_C7VM-WB68994
CVCL_C7VN-WB69011
CVCL_C7VP-WB68993
CVCL_C7VQ-WB68992
CVCL_C7VR-WB69005
CVCL_C7VT-WB68945
CVCL_C7VW-WB68972
CVCL_C7VX-WB68985
CVCL_C7VY-WB68973
CVCL_D3YC-WB69004
WIBR3-WB68995
WIBR3-WB69008
WIBR3-S1-WB68893
WIBR3-S2-WB68916
WIBR3-S3-WB68940
STAN224i-514C3-DB44527
STAN225i-514C4-DB44531
STAN261i-698C5-DB35565
STAN336i-963C1-DB44503
STAN337i-963C3-DB44506

UNIQUE IDENTIFIER: NA

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
21	0	2 Negatives

TEST SUMMARY:

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

REFERENCE: Processed according to LAB-003: Sterility Test Procedure
PD #: 000053

Native Product Sterility Report

STERIS

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: Sample #25070686

AUTHORIZED BY Lee Vang DATE 11Aug25

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.