Certificate of Analysis

Thaw and Culture Details

Cell Line Name	**CBiPS-6.13-PCBC**	
WiCell Lot Number	**WB68020**	
Parent Material	CBiPS-6.13-PCBC-DB66961	
Provider/Client	Johns Hopkins University - Dr. Elias Zambidis	
Banked By	WiCell	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 2 wells of a 6 well plate using mTeSR™1 and Matrigel®. The Provider recommends only dispase passaging.	
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol	
Culture Platform Prior to Freeze	Medium: mTeSR™1	Matrix: Matrigel®
Passage Number	p31 Cells were cultured for 30 passages prior to freeze. Plated cells at thaw should be labeled passage 31.	
Date Vialed	13-October-2022	
Vial Label	CBiPS-6.13-PCBC p31 WB68020	
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™	Consistent with 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

Testing Reported by Provider

The Provider stated that some or all of the additional analyses listed below may have been performed for this cell line. For more information, publication and Synapse links, where available, are provided on the cell line specific web page on the WiCell website.

- RNA-Seq
- Teratoma representative of all three embryonic germ layers identified in all tumors with histopathological analysis
- Immunostaining analysis to confirm pluripotency and OCT4 to evaluate the presence of undifferentiated PSC
- mRNA, miRNA, and methylation profiling
- Genemoics characterization
- Flow Cytometry (SSEA-1, SSEA-4, Tra 1-61,Tra 1-80, CD9, OCT-4)

Certificate of Analysis

Approval Date	WiCell Quality Assurance Approval
01-December-2022	12/1/2022 X HEB HEB WiCell Quality Assurance Signed by: Bruner, Haley

Chromosome Analysis Report: 094621

Date Reported: Wednesday, November 23, 2022

Cell Line: CBiPS-6.13-PCBC-WB68020

Submitted Passage #: 33

Date of Sample: 11/4/2022

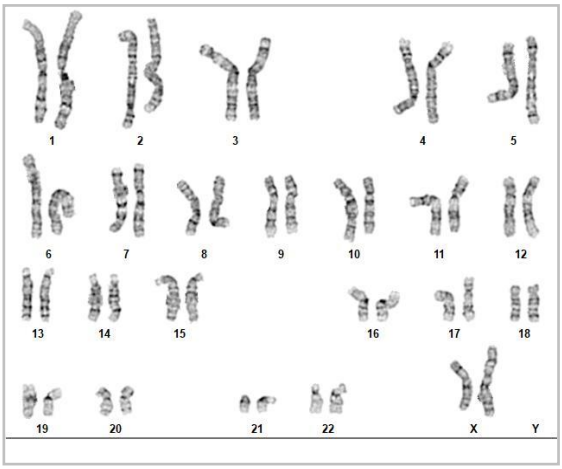
Specimen: Human IPSC

Results: 46,XX

Cell Line Sex: Female

Reason for Testing: LOT_RELEASE

Investigator: WiCell Stem Cell Bank, WiCell



Cell: 9

Slide: G01

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyogrammed: 4

Band Resolution: 450 - 475

Interpretation:

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

Completed by: Jennifer Pecos, CG(ASCP)

Reviewed and Interpreted by: Xiangqiang Shao, PhD

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
Samples Received: 02Nov22, 03Nov22, 04Nov22
STR Amplification Date: 07Nov22

Sample Name	CBiPS-6.13-PCBC-WB68020 p33	STAN036i-49-2-DB30900 p12	PENN008i-77-5-DB36507 p14	PENN018i-487-4-DB35031 p17
WiCell CTR No.[1]	94621	94593	94588	94587
FGA	[redacted]			
TPOX				
D8S1179				
vWA				
Amelogenin				
Penta_D				
CSF1PO				
D16S539				
D7S820				
D13S317				
D5S818				
Penta_E				
D18S51				
D21S11				
TH01				
D3S1358				
Allelic Polymorphisms				
Matches*	77507, 76855, 76813			
Comments				

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

**Note: The STR profile of the following sample is a 100% match for the given sample/samples unless otherwise specified.*

[1] CTR No.: Characterization Test Request Number; also known as a laboratory accessioning number.

Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell
Samples Received: 02Nov22, 03Nov22, 04Nov22
STR Amplification Date: 07Nov22

Assay Description: STR analysis is performed using the PowerPlex 16 HS System by Promega™. Results are reported as 13 CODIS STR markers, Amelogenin for gender determination and two low-stutter, highly discriminating pentanucleotide STR markers.

Results: The genotypic profiles comprise a range of 26-29 allelic polymorphisms across the 15 STR loci analyzed.

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 suggests 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%.

11/17/2022	11/18/2022	11/17/2022
X Amber Kuhn	X Anna Lisa Larson	X Hunter Hefti
Tech #1 Characterization Signed by: Kuhn, Amber	Tech #2 Characterization Signed by: Larson, Anna Lisa	QA Review Quality Assurance Signed by: Hefti, Hunter

Mycoplasma Assay Report

PCR-based assay performed by WiCell
WiCell Stem Cell Bank, WiCell
04Nov22

Form SOP-83.01
Version 5.0

Sample Name	Result	Interpretation
STAN036i-49-2-DB30900 p12 (94593)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
PENN008i-77-5-DB36507 p14 (94588)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
PENN018i-487-4-DB35031 p17 (94587)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
CBiPS-6.13-PCBC-WB68020 p33 (94621)	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).

11/4/2022	11/8/2022	11/10/2022
X Julia Graham	X Justin Hobson	X Hunter Hefti
Tech #1 Characterization Signed by: Graham, Julia	Tech #2 Characterization Signed by: Hobson, Justin	QA Review Quality Assurance Signed by: Hefti, Hunter

A gel image is available upon request.

Native Product Sterility Report

STERIS

SAMPLE #:	22101452
DATE RECEIVED:	27-Oct-22
TEST INITIATED:	04-Nov-22
TEST COMPLETED:	18-Nov-22

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

SAMPLE NAME / DESCRIPTION: CBiPS-6.13-PCBC-WB68020
WC007i-FX13-2-WB68026
PENN142i-M3-19-DB35077
PENN155i-M3-21-DB35100
PENN160i-M6-6-DB35109
PENN073i-133-8-DB36093
PENN166i-M15-4-DB36113
PENN072i-187-3-DB36097
PENN040i-134-2-DB34912
PENN079i-33-1-DB34964

UNIQUE IDENTIFIER: N/A

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	1	2 Negatives

TEST SUMMARY:

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

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

PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: Sample marked as PENN155i-M3-21-DB35100 is positive

AUTHORIZED BY _____ DATE 21 NOV 2022