



# Certificate of Analysis

## Thaw and Culture Details

Cell Line Name	<b>STAN249i-617C2</b>	
WiCell Lot Number	<b>WB68196</b>	
Parent Material	STAN249i-617C2-DB35491	
Provider/Client	Stanford University – Laboratory of Dr. Thomas Quettermous	
Banked By	WiCell	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate using mTeSR™ 1 and Cultrex®.	
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol	
Culture Platform Prior to Freeze	Medium: mTeSR™ 1	Matrix: Cultrex®
Passage Number	p17 Cells were cultured for 16 passages prior to freeze and post colony selection. Plated cells at thaw should be labeled passage 17.	
Date Vialied	19-October-2023	
Vial Label	STAN249i-617C2 p17 WB68196	
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.	



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## 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> 46,XX,dup(20)(q11.2q11.2)[7]/46,XX[13] <b>Interpretation:</b> This is an abnormal karyotype. There is an interstitial duplication in the long (q) arm of chromosome 20 in seven of twenty cells examined. There is a known recurrent acquired duplication at this location in human pluripotent stem cell cultures; we recommend that this abnormality be confirmed by higher resolution testing. 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™	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

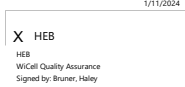


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## Testing Reported by Provider

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 dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

- RNA-Seq
- Whole Genome Sequencing

Approval Date	WiCell Quality Assurance Approval
11-January-2024	 <p>X HEB HEB WiCell Quality Assurance Signed by Bruner, Haley</p>

**Date Reported:** Monday, November 13, 2023

**Cell Line Sex:** Female

**Cell Line:** STAN249i-617C2-WB68196

**Reason for Testing:** LOT\_RELEASE

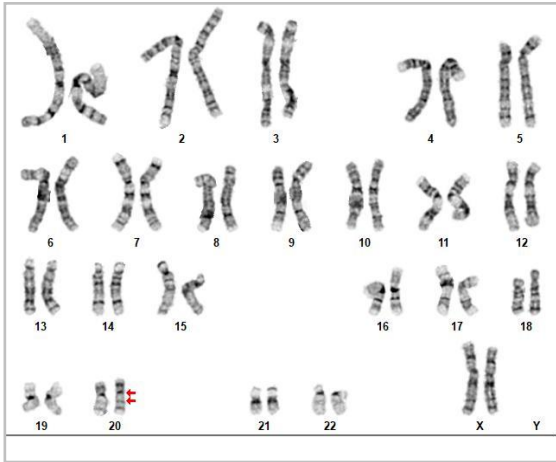
**Submitted Passage #:** 17

**Date of Sample:** 11/7/2023

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

**Specimen:** Human iPSC

**Results:** 46,XX,dup(20)(q11.2q11.2)[7]/46,XX[13]



**Cell:** 4

**Slide:** G02

**Slide Type:** Karyotype

**Total Counted:** 20

**Total Analyzed:** 8

**Total Karyogrammed:** 4

**Band Resolution:** 400 - 475

**Interpretation:**

**This is an abnormal karyotype. There is an interstitial duplication in the long (q) arm of chromosome 20 in seven of twenty cells examined. There is a known recurrent acquired duplication at this location in human pluripotent stem cell cultures; we recommend that this abnormality be confirmed by higher resolution testing. No other clonal abnormalities were detected at the stated band level of resolution.**

**Completed by:** Pam Mill

**Reviewed and Interpreted by:** Xiangqiang Shao, PhD, DABMGG

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

Samples Received: 07Nov23

STR Amplification Date: 15Nov23

Form SOP-89.01

Version 11.0

<b>Sample Name</b>	<b>STAN249i-617C2-WB68196 p17</b>
<b>WiCell CTR No.<sup>1</sup></b>	99511
<b>FGA</b>	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>
<b>TPOX</b>	
<b>D8S1179</b>	
<b>vWA</b>	
<b>Amelogenin</b>	
<b>Penta_D</b>	
<b>CSF1PO</b>	
<b>D16S539</b>	
<b>D7S820</b>	
<b>D13S317</b>	
<b>D5S818</b>	
<b>Penta_E</b>	
<b>D18S51</b>	
<b>D21S11</b>	
<b>TH01</b>	
<b>D3S1358</b>	
<b>Allelic Polymorphisms</b>	27
<b>Matches*</b>	86519, 86541, 92916
<b>Comments</b>	

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

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



# Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell

Samples Received: 07Nov23

STR Amplification Date: 15Nov23

Form SOP-89.01

Version 11.0

**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 27 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%.

11/17/2023	11/22/2023	11/22/2023
<b>X</b> Justin Hobson	<b>X</b> Amber Kuhn	<b>X</b> Ryen Smith
Tech #1 Characterization Signed by: Hobson, Justin	Tech #2 Characterization Signed by: Kuhn, Amber	QA Review Quality Assurance Signed by: Smith, Ryen

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# Mycoplasma Assay Report

PCR-based assay performed by WiCell  
WiCell Stem Cell Bank, WiCell  
13Nov23

Form SOP-83.01  
Version 5.0

Sample Name	Result	Interpretation
STAN249i-617C2-WB68196 p17 (99511)	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).

11/13/2023	11/13/2023	11/14/2023
<b>X</b> Julia Graham	<b>X</b> Kaylie Petersen	<b>X</b> Dawn Graham
Tech #1 Characterization Signed by: Graham, Julia	Tech #2 Characterization Signed by: Petersen, Kaylie	QA Review Quality Assurance Signed by: Graham, Dawn

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*A gel image is available upon request.*

# Native Product Sterility Report



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

SAMPLE #: 23120703  
DATE RECEIVED: 15-Dec-23  
TEST INITIATED: 15-Dec-23  
TEST COMPLETED: 29-Dec-23

SAMPLE NAME / DESCRIPTION: UCSD087i-6-4-WB68222  
WA-AICS-0046-051-WB68220  
WA-AICS-0053-016-WB68221  
WA-AICS-0058-067-WB68225  
WA-AICS-0060-027-WB68223  
WA-AICS-0023-WB68203  
PENNO29i-752-3-WB68199  
H1 SOX2-Cherry-2A-C.2-WB68198  
STAN249i-617C2-WB68196  
H1 SOX2-Cherry-2A-C.2-WB68197  
UCSD012i-5-5-WB68191  
UCSD087i-6-4-WB68192  
WA09-WB68167  
WA09-WB68168  
WA09-WB68169

UNIQUE IDENTIFIER: N/A

## TEST RESULTS:

# Tested	# Positives (Growth)	- Control
15	0	2 Negatives

## TEST SUMMARY:

# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
15	TSB	40	20-25	14
15	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 #23120703

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

A handwritten signature in blue ink, consisting of a circular scribble with a long horizontal stroke extending to the right, positioned above the signature line.

DATE 03 JAN 2024

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.