



## Thaw and Culture Details

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cell Line Name                   | <b>CBiPS-LZ6+3-PCBC</b>                                                                                                                                                                                                                                                                                                                                                                                    |
| WiCell Lot Number                | <b>WB67279</b>                                                                                                                                                                                                                                                                                                                                                                                             |
| Provider                         | Johns Hopkins University - Dr. Elias Zambidis                                                                                                                                                                                                                                                                                                                                                              |
| Banked By                        | National Heart, Lung and Blood Institute Progenitor Cell Biology Consortium (NHLBI PCBC)                                                                                                                                                                                                                                                                                                                   |
| Thaw and Culture Recommendations | WiCell recommends thawing 1 vial into 2 wells of a 6 well plate. The Provider recommends only dispase passaging.                                                                                                                                                                                                                                                                                           |
| Culture Platform                 | Feeder Independent                                                                                                                                                                                                                                                                                                                                                                                         |
|                                  | Medium: mTeSR™1                                                                                                                                                                                                                                                                                                                                                                                            |
|                                  | Matrix: Matrigel®                                                                                                                                                                                                                                                                                                                                                                                          |
| Protocol                         | WiCell Feeder Independent mTeSR™1 Protocol                                                                                                                                                                                                                                                                                                                                                                 |
| Passage Number                   | p29<br>These cells were cultured for 28 passages prior to freeze. WiCell adds +1 to the passage number at freeze to best represent what the overall passage number of the cells at thaw. Plated cells at thaw should be labeled passage 29.                                                                                                                                                                |
| Date Vialied                     | 02-August-2019                                                                                                                                                                                                                                                                                                                                                                                             |
| Vial Label                       | CBiPS-LZ6+3<br>p29<br>WB67279                                                                                                                                                                                                                                                                                                                                                                              |
| 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.<br>Cells distributed by WiCell are intended for research purposes only and are not intended for use in humans. |

## Testing Performed by WiCell

| Test Description               | Test Provider                                                 | Test Method                       | Test Specification                                                                                                                   | Result     |
|--------------------------------|---------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------|
| Karyotype by G-banding         | WiCell                                                        | SOP-CH-003                        | Expected karyotype                                                                                                                   | See Report |
| Post-Thaw Viable Cell Recovery | WiCell                                                        | SOP-CH-305                        | ≥ 15 Undifferentiated Colonies prior to passage,<br>≤ 30% Differentiation prior to passage, and recoverable attachment after passage | Pass       |
| Identity by STR                | UW Translational Research Initiatives in Pathology Laboratory | PowerPlex 16 HS System by Promega | Defines STR profile of deposited cell line                                                                                           | Pass       |
| Sterility                      | Steris                                                        | ST/07                             | Negative                                                                                                                             | Pass       |
| Mycoplasma                     | WiCell                                                        | SOP-CH-044                        | Negative                                                                                                                             | 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
- SNP microarray
- Immunostaining analysis to confirm pluripotency and OCT4 to evaluate the presence of undifferentiated PSC
- mRNA, miRNA, and methylation profiling
- Genomics characterization
- Flow Cytometry (SSEA-1, SSEA-4, Tra 1-61, Tra 1-80, CD9, OCT-4)

| Approval Date     | Quality Assurance Approval                                                                                         |
|-------------------|--------------------------------------------------------------------------------------------------------------------|
| 26-September-2019 | <div>7/10/2020</div> <div>X AA</div> <div>AA</div> <div>Quality Assurance</div> <div>Signed by: Armitz, Andy</div> |



## Chromosome Analysis Report: 077969

**Date Reported:** Friday, August 23, 2019

**Cell Line:** CBiPS-LZ6+3-WB67279 14950

**Passage#:** 29

**Date of Sample:** 8/16/2019

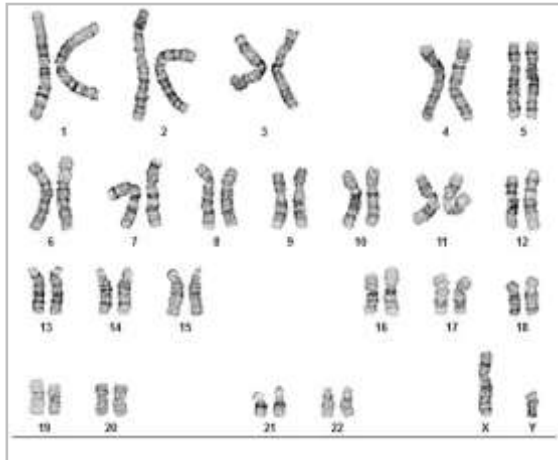
**Specimen:** Human IPSC

**Results:** 46,XY

**Cell Line Sex:** Male

**Reason for Testing:** lot release testing

**Investigator:** [REDACTED] WiCell



**Cell:** 5

**Slide:** G02

**Slide Type:** Karyotype

**Total Counted:** 20

**Total Analyzed:** 8

**Total Karyogrammed:** 4

**Band Resolution:** 500 - 550

### Interpretation:

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

**Completed by:** [REDACTED] CG(ASCP)

**Reviewed and Interpreted by:** [REDACTED] PhD, FACMG

**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.*



HISTOLOGY - IHC - MOLECULAR - IMAGING

Department of Pathology and Laboratory Medicine  
TRIP Laboratory (Molecular)  
<https://research.pathology.wisc.edu/trip-home/>  
(608) 265-9168

# Short Tandem Repeat Analysis



Your Lab Partner

[characterization@wicell.org](mailto:characterization@wicell.org)  
(608) 316-4145

**Sample Report:**

14950-STR

**Sample Name on Tube:** 14950-STR

27.2 ng/μL, (A260/280= -3.71)

**Sample Type:** Cells

**Cell Count:** ~2 million cells

**Requestor:**

WiCell Research Institute

Quality Assurance Department

**Receive Date:** 08/26/19

**Report Sent:** 08/29/19

**Assay Date:** 08/27/19

**File Name:** STR 190828 wmr

**Report Date:** 08/29/19

| STR Locus  | STR Genotype Repeat #                                                                                         | STR Genotype                                                                                                                                                              |
|------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FGA        | 16-18,18.2,19,19.2,20,20.2,21,21.2,22, 22.2, 23, 23.2, 24, 24.2, 25, 25.2, 26-30, 31.2, 43.2, 44.2,45.2, 46.2 | Identifying information has been redacted to protect donor confidentiality. If more information is required, please, contact <a href="#">WiCell's Technical Support</a> . |
| TPOX       | 6-13                                                                                                          |                                                                                                                                                                           |
| D8S1179    | 7-18                                                                                                          |                                                                                                                                                                           |
| vWA        | 10-22                                                                                                         |                                                                                                                                                                           |
| Amelogenin | X,Y                                                                                                           |                                                                                                                                                                           |
| Penta_D    | 2.2, 3.2, 5, 7-17                                                                                             |                                                                                                                                                                           |
| CSF1PO     | 6-15                                                                                                          |                                                                                                                                                                           |
| D16S539    | 5, 8-15                                                                                                       |                                                                                                                                                                           |
| D7S820     | 6-14                                                                                                          |                                                                                                                                                                           |
| D13S317    | 7-15                                                                                                          |                                                                                                                                                                           |
| D5S818     | 7-16                                                                                                          |                                                                                                                                                                           |
| Penta_E    | 5-24                                                                                                          |                                                                                                                                                                           |
| D18S51     | 8-10, 10.2, 11-13, 13.2, 14-27                                                                                |                                                                                                                                                                           |
| D21S11     | 24,24.2,25,25.2,26-28,28.2,29,29.2, 30, 30.2,31, 31.2,32,32.2,33,33.2, 34,34.2,35,35.2,36-38                  |                                                                                                                                                                           |
| TH01       | 4-9,9.3,10-11,13.3                                                                                            |                                                                                                                                                                           |
| D3S1358    | 12-20                                                                                                         |                                                                                                                                                                           |

**Results:** Based on the 14950-STR cells submitted by WiCell QA dated and received on 08/26/19, this sample (Label on Tube: 14950-STR) defines the STR profile of the human cell line CBiPS-LZ6+3 comprising 25 allelic polymorphisms across the 15 STR loci analyzed.

**Interpretation:** No STR polymorphisms other than those corresponding to the human CBiPS-LZ6+3 cell line were detected and 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. This result suggests that the 14950-STR sample submitted corresponds to the CBiPS-LZ6+3 cell line and was 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 ~2-5%.

X *RMB*

Digitally Signed on 08/29/19

BA  
TRIP Laboratory, Molecular

X *WMR*

Digitally Signed on 08/29/19

PhD, Director / Co-Director  
UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

Testing was accomplished by analysis of human genetic polymorphisms at STR loci. This methodology has not yet been approved by the FDA and is for investigational use only.

**Acknowledge TRIP in your publications, posters & presentations. For details, see:** <https://research.pathology.wisc.edu/acknowledging-trip/>

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# Native Product Sterility Report



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

**CORRECTED  
REPORT**

SAMPLE #: 19090374  
DATE RECEIVED: 05-Sep-19  
TEST INITIATED: 09-Sep-19  
TEST COMPLETED: 23-Sep-19

|                            |                    |         |       |
|----------------------------|--------------------|---------|-------|
| SAMPLE NAME / DESCRIPTION: | CBiPS-LZ6+3        | WB67279 | 14989 |
|                            | hIPSC-Di21-c2-4-4  | WB67281 | 14990 |
|                            | MCW026i-50000685   | WB67283 | 14991 |
|                            | NiPSC              | WB67284 | 14992 |
|                            | WIZ02e-H9CAGhM4Di  | WB67286 | 14993 |
|                            | WIZ04e-H9CAGmChry  | WB67287 | 14994 |
|                            | WC050i-17097-02-01 | WB67288 | 14995 |
|                            | WC005i-FX11-7      | WB67289 | 14996 |
|                            | PACS1002i-GM27159  | DB67290 | 14997 |
|                            | SCR4505i           | WB67291 | 14998 |

UNIQUE IDENTIFIER: NA

## TEST RESULTS:

| # Tested | # Positives<br>(Growth) | - Control   |
|----------|-------------------------|-------------|
| 10       | 0                       | 2 Negatives |

## TEST SUMMARY:

| # Samples | Media Type | Volume (mL) | Incubation<br>Temperature<br>(° C) | Incubation<br>Duration<br>(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: Report revised due to corrected Sample Name/Description.

REVIEWED BY

DATE

25SEP19

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.



# Mycoplasma Assay Report

PCR-based assay performed by WiCell

Lot Release Testing

August 19, 2019

FORM SOP-CH-044.03

Version B Edition 02

| # | Sample Name               | Result   | Comments/Suggestions                                              |
|---|---------------------------|----------|-------------------------------------------------------------------|
| 1 | CBiPS-LZ6+3-WB67279 14950 | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| 2 | Positive (+) Control      | Positive |                                                                   |
| 3 | Negative (-) Control      | Negative |                                                                   |

**Reported by: Molly Miles, Cell Culture Specialist**

**Reviewed by: Alex Paguirigan, Assistant Cell Culture Specialist**

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*A gel image is available upon request.*