# Certificate of Analysis

## Thaw and Culture Details

| | | |
|---|---|---|
| Cell Line Name | **hIPSC-Di21-c2-4-3** | |
| WiCell Lot Number | **WB69135** | |
| Parent Material | hIPSC-Di21-c2-4-3-WB67215 | |
| Provider/Client | University of Washington – Dr. David Russell | |
| Banked By | WiCell | |
| Thaw and Culture Recommendations | WiCell recommends thawing 1 vial into 1 well of a 6 well plate using Stem Cell Culture Medium and MEF. WiCell recommends thawing using ROCK Inhibitor for best results. WiCell recommends passaging with ROCK Inhibitor. | |
| Protocol | WiCell Feeder Based (MEF) Pluripotent Stem Cell Protocol | |
| Culture Platform Prior to Freeze | Medium: Stem Cell Culture Medium | Matrix: MEF |
| Passage Number | p55<br>Cells were cultured for 54 passages prior to freeze and post colony picking. Plated cells at thaw should be labeled passage 55. | |
| Date Vialed | 13-OCTOBER-2025 | |
| Vial Label | hIPSC-Di21-c2-4-3<br>p55<br>WB69135<br><br>Store at -135C or colder<br>Made in United States<br>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.<br>Cells distributed by WiCell are intended for research purposes only and are not intended for use in humans. | |

# Certificate of Analysis

## Results

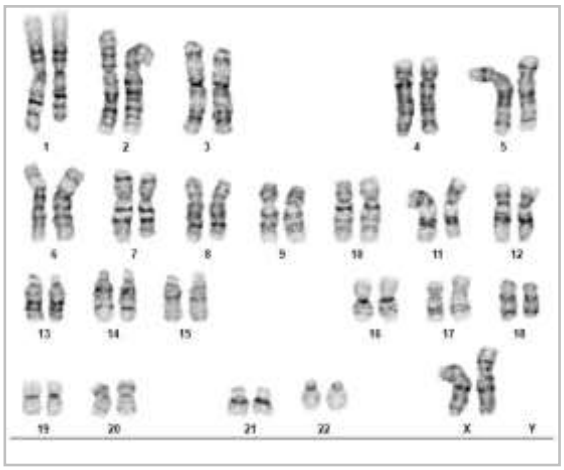
| Test Description | Test Provider | Test Method | Test Specification | Result |
|---|---|---|---|---|
| Karyotype | WiCell | G-T-L Banding performed on 20 metaphase cells | Expected karyotype | See Report |
| | ***Results:*** 46,XX<br>***Interpretation:*** This is a normal karyotype; no clonal abnormalities 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,<br>≤ 30% Differentiation prior to passage,<br>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 |

| Approval Date | WiCell Quality Assurance Approval |
|---|---|
| 12-June-2026 | 6/12/2026<br>X HEB<br>HEB<br>WiCell Quality Assurance<br>Signed by: Bruner, Haley |

# Chromosome Analysis Report: 109667

**Date Reported:** November 02, 2025
**Cell Line:** hIPSC-Di21-c2-4-3-WB69135
**Submitted Passage #:** 56
**Date of Sample:** 10/25/2025
**Specimen:** Human Modified iPSC
**Results:** 46,XX

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



**Cell:** 72
**Slide:** G06
**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:** 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: 28Oct25, 27Oct25, 25Oct25, 13Oct25
STR Amplification Date: 03Nov25



| Sample Name | CVCL_C7VT-WB69109 p50 | SUSL-073_C10-DB68962 p5 | hIPSC-Di21-c2-4-3-WB69136 p56 | hIPSC-Di21-c2-4-3-WB69135 p56 | SUSL-047_C2-DB68949 p11 |
|---|---|---|---|---|---|
| WiCell CTR No.[1] | 109682 | 109669 | 109668 | 109667 | 109489 |
| FGA | [redacted] | | | | |
| TPOX | | | | | |
| D8S1179 | | | | | |
| vWA | | | | | |
| Amelogenin | | | | | |
| Penta_D | | | | | |
| CSF1PO | | | | | |
| D16S539 | | | | | |
| D7S820 | | | | | |
| D13S317 | | | | | |
| D5S818 | | | | | |
| Penta_E | | | | | |
| D18S51 | | | | | |
| D21S11 | | | | | |
| TH01 | | | | | |
| D3S1358 | | | | | |
| Allelic Polymorphisms | 28 | 24 | 27 | 27 | 26 |
| Matches[2] | See Results | 109661, 109660 | 109667, 107163, 103131, 102801 (93.75%), 101669, 77506 (93.75%), 77505, 77901, 77346 (93.75%) | 109668, 107163, 103131, 102801 (93.75%), 101669, 77506 (93.75%), 77505, 77901, 77346 (93.75%) | 109465, 109595, 109466 (96.67%) |
| 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: 28Oct25, 27Oct25, 25Oct25, 13Oct25
STR Amplification Date: 03Nov25



**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 24 to 28 allelic polymorphisms across the 15 STR loci analyzed. Samples 109682 is a 100% match to 109577, 109490, 109407, 109139, 109380, 109332, 109197, 109232, 109158, 108776, 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%.

| | | |
|---|---|---|
| 11/5/2025 | 11/5/2025 | 11/5/2025 |
| X Steph Dos Santos | X Michael Mussar | X Manda Weber |
| Tech #1<br>Characterization<br>Signed by: Dos Santos, Stephany | Tech #2<br>Characterization<br>Signed by: Mussar, Michael | QA Review<br>Quality Assurance<br>Signed by: Weber, Manda |

# Mycoplasma Assay Report

PCR-based assay performed by WiCell
WiCell Stem Cell Bank, WiCell
29Oct25

Form SOP-83.01
Version 7.0

| Sample Name | Result | Interpretation |
|---|---|---|
| CVCL_C7VT-WB69109 p50 (109682) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| hIPSC-Di21-c2-4-3-WB69136 p56 (109668) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| hIPSC-Di21-c2-4-3-WB69135 p56 (109667) | 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). |

| | | |
|---|---|---|
| 10/29/2025<br>X Jacob Chow<br>Tech #1<br>Characterization<br>Signed by: Chow, Jacob | 10/29/2025<br>X Amber Kuhn<br>Tech #2<br>Characterization<br>Signed by: Kuhn, Amber | 10/30/2025<br>X Manda Weber<br>QA Review<br>Quality Assurance<br>Signed by: Weber, Manda |



*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 #: 25100984
DATE RECEIVED: 30-Oct-25
TEST INITIATED: 31-Oct-25
TEST COMPLETED: 14-Nov-25

SAMPLE NAME / DESCRIPTION:
CVCL_C7UZ-WB69110
CVCL_C7VF-WB69111
CVCL_C7VT-WB69109
CVCL_C7VT-WB69112
hIPSC-Di21-c2-4-3-WB69135
hIPSC-Di21-c2-4-3-WB69136
JHU255i-WB69879
STAN151i-303C3-WB69141
STAN359i-442C11-WB69310
SUSL-025_C2-WB69132
SUSL-025_C6-WB69138
SUSL-046_C1-WB69114
SUSL-046_C2-WB69115
SUSL-046_C9-WB69134
SUSL-047_C2-WB69139
SUSL-047_C5-WB69133
SUSL-047_C8-WB69889
WC-24-02-DS-B-WB69140
WC-24-02-DS-B-WB69596
ZFN 3.1-WB69971

UNIQUE IDENTIFIER: N/A

TEST RESULTS:

| # Tested | # Positives (Growth) | - Control |
|---|---|---|
| 20 | 0 | 2 Negatives |

TEST SUMMARY:

| # Samples | Media Type | Volume (mL) | Incubation Temperature (° C) | Incubation Duration (Days) |
|---|---|---|---|---|
| 20 | TSB | 40 | 20-25 | 14 |
| 20 | 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: Sample #25100984

AUTHORIZED BY _____ DATE 18 NOV 2025

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.