



Thaw and Culture Details

| | |
|----------------------------------|---|
| Cell Line Name | LUEL8360i-2 |
| WiCell Lot Number | WB66888 |
| Provider | Luebeck University, Dr. Christine Klein |
| Banked By | WiCell |
| Thaw and Culture Recommendations | WiCell recommends thawing 1 vial into 4 wells of a 6 well plate. |
| Culture Platform | Feeder Independent |
| | Medium: mTeSR™1 |
| | Matrix: Matrigel® |
| Protocol | WiCell Feeder Independent mTeSR™1 Protocol |
| Passage Number | p17 These cells were cultured for 16 passages prior to freeze and post colony picking. 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 17. |
| Date Viald | 13-August-2018 |
| Vial Label | LUEL8360i-2 p17 WB66888 |
| 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. |

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, ≤ 30% Differentiation and recoverable attachment after passage | Pass |
| Identity by STR | UW Translational Research Initiatives in Pathology Laboratory | PowerPlex 16 HS System by Promega | Defines profile | Pass |
| Sterility | Steris | ST/07 | Negative | Pass |
| Mycoplasma | WiCell | SOP-QU-004 | Negative | Pass |

Testing Reported by Provider

The provider has provided the following testing and results for this cell line. If available, a link to the relevant publication is provided on the cell line specific web page on the WiCell website.

| Test Description | Result | Report |
|-----------------------------|----------|----------------------|
| HIV, HBV, and HCV Screening | Negative | Report not available |



| Approval Date | Quality Assurance Approval |
|------------------|--|
| 08-November-2018 | <p style="text-align: right;">11/8/2018</p> <p>X <u>JKG</u></p> <p><small>JKG Quality Assurance Signed by Gay, Jenna</small></p> |

Date Reported: Saturday, October 20, 2018

Cell Line: LUEL8360i-2-WB66888 14025

Passage#: 17

Date of Sample: 10/15/2018

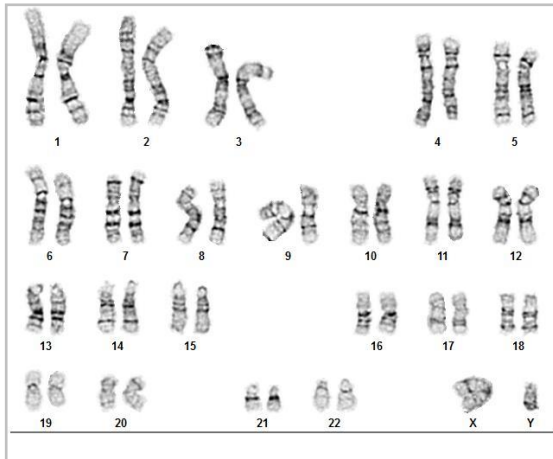
Specimen: Human IPS

Results: 46,XY

Cell Line Sex: Male

Reason for Testing: lot release testing

Investigator: [REDACTED], WiCell



Cell: 7

Slide: G01

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyogrammed: 4

Band Resolution: 425 - 475

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. 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.

Sample Report:

14025-STR
Sample Name on Tube: 14025-STR
85.8 ng/μL, (A260/280=1.90)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:

WiCell Research Institute
Quality Department

Sample Date: N/A

Receive Date: 10/22/18
Assay Date: 10/23/18
File Name: STR 181024 wmr
Report Date: 10/26/18

| 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 WiCell's Technical Support . |
| 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 14025-STR cells submitted by WiCell QA dated and received on 10/22/18, this sample (Label on Tube: 14025-STR) defines the STR profile of the human stem cell line LUEL8360i-2 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.


Interpretation: No STR polymorphisms other than those corresponding to the human LUEL8360i-2 stem 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 14025-STR sample submitted corresponds to the LUEL8360i-2 stem cell line and was not contaminated with any other human stem 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 stem cell lines is ~2-5%.

 **X** *RMB*
Digitally Signed on 10/26/18

 **X** *WMR*
Digitally Signed on 10/26/18

, BA
TRIP Laboratory, Molecular

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

Native Product Sterility Report



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

SAMPLE #: 18081822
DATE RECEIVED: 23-Aug-18
TEST INITIATED: 29-Aug-18
TEST COMPLETED: 12-Sep-18

SAMPLE NAME / DESCRIPTION: UCSD027i-9-2 WB57332 13953
WA07 CY66889 13954
LUEL7159i-16 WB66875 13955
UCSD028i-9-3 WB66873 13956
CREM003i-BU3C2 WB66874 13957
CREM018i-SS24-1 WB66883 13958
LUEL5748i-2 WB66878 13959
WC036i-0498-1 WB66882 13960
WC036i-0498-1 WB66884 13961
CREM024i-SS36-1 WB66886 13962
LUEL8360i-2 WB66888 13963
LUEL7991i-1 WB66891 13964
LUEL5748i-3 WB66894 13965
LUEL7153i-1 WB66895 13966
LUEL7673i-2 WB66898 13967
LUEL7149i-1 WB66899 13968
CREM029i-SS44-1 DB48061 13969
CREM030i-SS45-1 DB48064 13970
JHU012i-2 DB36196 13971
JHU017i DB36203 13972

UNIQUE IDENTIFIER: NA
PRODUCT REGISTRATION: Other: Human iPS cells

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

METHOD VALIDATION / PD #: 000053

Native Product Sterility Report



TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: NA

REVIEWED BY

A handwritten signature in blue ink, written over a horizontal line. The signature is cursive and appears to read "G. Malin".

DATE

17 SEP 18

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.



Mycoplasma Detection Assay Report

Testing Performed by WiCell
Lot Release Testing
October 18, 2018

FORM SOP-QU-004.01
Version G Edition 02
Reported by: AP
Reviewed by: JB
BD Monolight 180

| # | Sample Name | Reading A | | A Ave | Reading B | | B Ave | Ratio B/A | Result | Comments/Suggestions |
|---|---------------------------|-----------|------|-------|-----------|------|-------|-----------|----------|----------------------|
| | | RLU1 | RLU2 | | RLU1 | 75 | | | | |
| 1 | LUEL8360i-2-WB66888 14025 | 129 | 123 | 126 | 47 | 49 | 48 | 0.38 | Negative | |
| 2 | Positive (+) Control | 193 | 190 | 191.5 | 5519 | 5687 | 5603 | 29.26 | Positive | |
| 3 | Negative (-) Control | 641 | 642 | 641.5 | 79 | 73 | 76 | 0.12 | Negative | |

