



Thaw and Culture Details

| | |
|----------------------------------|--|
| Cell Line Name | MIN09i-33114.C |
| WiCell Lot Number | WB19768 |
| Provider | Massachusetts General Hospital |
| Banked By | WiCell |
| Thaw and Culture Recommendations | WiCell recommends thawing 1 vial into 3 wells of a 6 well plate. |
| Culture Platform | Feeder Independent |
| | Medium: mTeSR™1 |
| | Matrix: Matrigel® |
| Protocol | WiCell Feeder Independent mTeSR™1 Protocol |
| Passage Number | p15 These cells were cultured for 14 passages prior to freeze. WiCell adds +1 to the passage number at freeze so that the number on the vial best represents the overall passage number of the cells at thaw. |
| Date Vialied | 19-May-2015 |
| Vial Label | MIN09i-33114.C p15 WB19768 |
| 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 |
|--------------------------------|---|-----------------------------------|---|--------|
| 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 | Biotest Laboratories | ST/07 | Negative | Pass |
| Mycoplasma | WiCell | SOP-QU-004 | Negative | Pass |
| Karyotype by G-banding | WiCell | SOP-CH-003 | Report karyotype | Pass |



Testing Reported by Provider

| Test Description & Method | Result |
|--|--|
| Genetic Analysis by Karyotype | Normal |
| Embryoid Body Formation | RT(q)PCR (GATA2 - Meso; AFP, Sox17 - Endo; Pax6, MAP2 - Ectoderm) |
| Pluripotency Markers; AP, Oct4, Nanog, SSEA-3, SSEA-4, TRA1-60 | All Markers Expressed |

| Approval Date | Quality Assurance Approval |
|-----------------|--|
| 09-October-2015 | <p style="text-align: right;">2/20/2020</p> <p><input checked="" type="checkbox"/> HEB</p> <p>HEB Quality Assurance Signed by: Bruner, Haley</p> |

Date Reported: Saturday, November 05, 2016

Cell Line: MIN09i-33114.C-WB19768 11915

Passage#: 15

Date of Sample: 10/31/2016

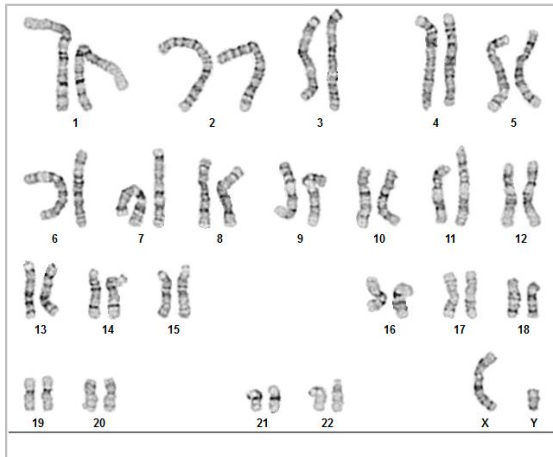
Specimen: iPSC

Results: 46,XY

Cell Line Gender: Male

Reason for Testing: lot release testing

Investigator: [REDACTED], WiCell CDM



Cell: 13

Slide: 3

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyogrammed: 4

Band Resolution: 450 - 525

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

A signed copy of this report is available upon request.

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 may not be relied upon by any other party without the prior written consent of the Director of the WiCell Cytogenetics Laboratory. The results of this assay are for research use only. If the results of this assay are to be used for any other purpose, contact the Director of the WiCell Cytogenetics Laboratory.

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.

Short Tandem Repeat Analysis

Department of Pathology and Laboratory Medicine
TRIP Laboratory (Molecular)
<http://www.pathology.wisc.edu/research/trip>

WiCell®
info@wicell.org
(888) 204-1782

Sample Report:

11915-STR
Sample Name on Tube: 11915-STR
86.4 ng/μL, (A260/280=1.72)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:

WiCell Research Institute
Quality Department

Sample Date: N/A

Receive Date: 11/07/16
Assay Date: 11/08/16
File Name: 161116 blb
Report Date: 11/16/16

| 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 11915-STR cells submitted by WiCell QA dated and received on 11/07/16, this sample (Label on Tube: 11915-STR) defines the STR profile of the human stem cell line MIN09i-33114.C comprising 28 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human MIN09i-33114.C 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 11915-STR sample submitted corresponds to the MIN09i-33114.C 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 11/17/16

TRIP Laboratory, Molecular

X WMR

Digitally Signed on 11/17/16

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: <http://www.pathology.wisc.edu/research/trip/acknowledging>

TRIP agrees to maintain the confidentiality of any information provided to it in connection with its performance of this STR analysis on the same conditions as set forth in paragraph 2 of WiCell's Terms and Conditions of Service (<http://www.wicell.org/media.acux/1a429b84-2b54-44a4-8ad8-5c05db93dd8a>).

Sterility Report

Biotest Laboratories, Inc.

Making life-saving products possible

WiCell Research Institute, Inc.
WiCell Quality Assurance
505 South Rosa Road, Suite 120
Madison, WI 53719

BIOTEST SAMPLE # 15071050
VALIDATION # NG
TEST PURPOSE NG

PRODUCT Zeng02i-iPSH14-WB19497 11328
WIC01i-02-1c-WB18031 11329
WIP06i-iPSCas9Het-WB18995 11330
WA01-WB16377 11331
MIN07i-33113.2D-WB19574 11332
MIN22i-33113.2I-WB19575 11333
MIN08i-33114.B-WB19546 11334
MIN09i-33114.C-WB19768 11335
MIN12i-33362.C-WB19545 11336
WC-24-02-DS-M-WB18754 1337

PRODUCT LOT NA

STERILE LOT NA

BI LOT NA

STERILIZATION LOT NA

BI EXPIRATION DATE NA

STERILIZATION DATE NA

DATE RECEIVED 2015-07-14

STERILIZATION METHOD NA

TEST INITIATED 2015-07-15

SAMPLING BLDG / ROOM NA

TEST COMPLETED 2015-07-29

REFERENCE Processed according to LAB-003: Sterility Test Procedure

Ten (10) products were each divided between 40 mL TSB and 40 mL FTG. The samples were then cultured at 20-25 C and 30-35 C respectively and were monitored for a minimum of 14 days.

- USP
- BI Manufacturers Specifications
- Other

RESULTS
Sterile


POSITIVES
0

TESTED
10

POSITIVE CONTROL
NA

NEGATIVE CONTROL
2 Negatives

COMMENTS NA

REVIEWED BY 

DATE 29 JUL 15

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. Liability is limited to the costs of the tests.

Biotest Laboratories ■ 9303 West Broadway Ave. ■ Brooklyn Park, MN 55445 ■ USA ■ (763) 315-1200

A subsidiary of STERIS Corporation





Mycoplasma Detection Assay Report

Testing Performed by WiCell

Lot Release Test

November 4th, 2016

FORM SOP-QU-004.01

Version F Edition 01

Reported by: SM and OG

Reviewed by: JB

Berthold Flash n' Glo 539

| # | Sample Name | Reading A | | | Reading B | | | Ratio B/A | Result | Comments/Suggestions |
|---|------------------------------|-----------|------|-----|-----------|------|------|-----------|----------|----------------------|
| | | RLU1 | RLU2 | Ave | RLU1 | RLU2 | Ave | | | |
| 1 | MIN09i-33114.C-WB19768 11915 | 82 | 84 | 83 | 33 | 31 | 32 | 0.39 | Negative | |
| 2 | Positive (+) Control | 101 | 97 | 99 | 4238 | 4314 | 4276 | 43.19 | Positive | |
| 3 | Negative (-) Control | 214 | 216 | 215 | 23 | 24 | 23.5 | 0.11 | Negative | |

