

Thaw and Culture Details

| Cell Line Name | STAN366i-282C2 | | |
|-------------------------------------|---|--|--|
| WiCell Lot Number | DB44383 | | |
| Provider | Stanford University – Laboratory of Dr. Thomas Quetermous | | |
| Banked By | Icahn School of Medicine at Mount Sinai Stem Cell Core | | |
| Thaw and Culture Recommendations | WiCell recommends thawing 1 vial into 3 wells of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results. | | |
| Culture Platform | Feeder Independent | | |
| | Medium: mTeSR1™ | | |
| | Matrix: Matrigel® | | |
| Protocol | WiCell Feeder Independent mTeSR1 [™] Protocol | | |
| Passage Number | p14 These cells were cultured for 14 passages after colony picking prior to freeze. Add +1 to the passage number to best represent the overall passage number of the cells at thaw. | | |
| Date Vialed | 18-May-2016 | | |
| Vial Label | ISMMS 282i C2 P14 PEC 051816 | | |
| 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 |
|------------------------|--------------------------------------|------------------------|------------------------------|------------|
| | WiCell SOP-CH-003 Expected karyotype | | Expected karyotype | See Report |
| Karyotype by G-banding | Results: 46,XX | | | |
| | Interpretation: Nonclonal | findings: 46,XX,del(6) | (p22) | |
| Post-Thaw Viable Cell | WiCell | SOP-CH-305 | Recoverable attachment after | Pass |
| Recovery | WiCell | 301-01-303 | passage | F 855 |
| Identity by STR | UW Translational | PowerPlex 16 HS | | |
| | Research Initiatives in | System by | Defines profile | Pass |
| | Pathology Laboratory | Promega | | |
| Sterility | Steris | ST/07 | Negative | Pass |
| Mycoplasma | WiCell | SOP-CH-044 | Negative | Pass |

Testing Reported by Provider

| Test Description | Method | Result |
|------------------|---------------------|----------|
| Mycoplasma | Lonza MycoAlert kit | Negative |

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
- Infinium[®] Expanded Multi-Ethnic Genotyping Array (MEGA^{EX})

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The material provided under this certificate has been subjected to the tests specified and the results and data described herein are accurate based on WiCell's reasonable knowledge and belief. Appropriate Biosafety Level practices and universal precautions should always be used with this material. For clarity, the foregoing is governed solely by WiCell's Terms and Conditions of Service, which can be found at http://www.wicell.org/privacyandterms.



| Approval Date | Quality Assurance Approval | |
|------------------|---|--|
| 08-November-2016 | 1/25/0021 Kiti Haley Bruner Hiti Gually Assurance Signed by: Bruner, Haley | |

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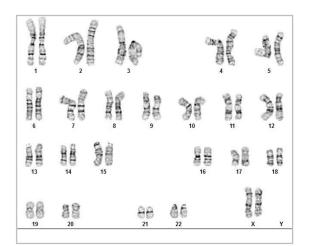
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Date Reported: Wednesday, March 06, 2019 Cell Line: STAN366i-282C2-DB44383 14349 Passage#: 16 Date of Sample: 2/26/2019 Specimen: Human IPS Results: 46,XX Cell Line Sex: Female Reason for Testing: lot release testing

Investigator: , WiCell

Nonclonal findings: 46,XX,del(6)(p22)



| Cell: 11 | |
|--------------|-----------|
| Slide: G01 | |
| Slide Type: | Karyotype |
| | |
| Total Count | ed: 20 |
| | |
| Total Analyz | .ed: 8 |

Band Resolution: 425 - 500

Interpretation:

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

There is a nonclonal finding, listed above. Nonclonal findings may result from technical artifact, but may be due to a developing clonal abnormality or to low-level mosaicism.

| Completed by: , CG(ASCP) Reviewed and Interpreted by: , PhD, FACM | | . , | |
|--|----------|----------|---------------|
| 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.

TRIPath

HISTOLOGY - IHC - MOLECULAR - IMAGING

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

Sample Report:

14349-STR Sample Name on Tube: 14349-STR 85.6 ng/μL, (A260/280=1.86) Sample Type: Cells Cell Count: ~2 million cells

Short Tandem Repeat Analysis

WiCell Research Institute

Quality Assurance Department

Requestor:



characterization@wicell.org (608) 316-4145

Receive Date: 03/04/19 **Report Sent:** 03/14/19 **Assay Date:** 03/06/19, 03/12/19 **File Name:** STR 190313 wmr **Report Date:** 03/14/19

| 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 |
| TPOX | 6-13 | information has |
| D8S1179 | 7-18 | been redacted to |
| vWA | 10-22 | protect donor |
| Amelogenin | X,Y | confidentiality. If |
| Penta_D | 2.2, 3.2, 5, 7-17 | more information |
| CSF1PO | 6-15 | is required, |
| D16S539 | 5, 8-15 | please, contact |
| D7S820 | 6-14 | WiCell's Technical Support. |
| 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 | |

<u>Results:</u> Based on the 14349-STR cells submitted by WiCell QA dated and received on 03/04/19, this sample (Label on Tube: 14349-STR) defines the STR profile of the human stem cell line STAN366i-282C2 comprising 28 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human STAN366i-282C2 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 14349-STR sample submitted corresponds to the STAN366i-282C2 stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells.

<u>Sensitivity</u>: 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 03/14/19 | X WMR | Digitally Signed on 03/14/19 |
|---------|------------------------------|-----------|--|
| TRIP La | , BA boratory, Molecular | UWHC Mole | , PhD, Director / Co-Director cular 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 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 https://www.wicell.org/media.acux/ca76d97c-862a-43f3-b02a-ab2d1e619100. 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.

Native Product Sterility Report

CO



WiCell

504 S Rosa Road, Rm 101 Madison, WI 53719

SAMPLE NAME / DESCRIPTION:

| RRECTED | F |
|---------|--------|
| PORT | L - |
| | |

| SAMPLE #: | 19021772 |
|-----------------|-----------|
| DATE RECEIVED: | 21-Feb-19 |
| TEST INITIATED: | 28-Feb-19 |
| TEST COMPLETED: | 14-Mar-19 |

| CRIPTION: | STAN349i-762C3 | DB35829 | 14353 | |
|-----------|-----------------|---------|-------|--|
| | STAN366i-282C2 | DB44383 | 14354 | |
| | STAN245i-601C4 | DB35481 | 14355 | |
| | STAN246i-601C5 | DB35484 | 14356 | |
| | UCSD241i-APP2-3 | WB67011 | 14357 | |
| | WC037i-20-02 | WB67012 | 14358 | |
| | JHU210i | WB67014 | 14359 | |
| | STAN069i-169-1 | WB67013 | 14360 | |
| | PENN087i-38-1 | DB36607 | 14366 | |
| | PENN033i-182-2 | DB36145 | 14367 | |
| | | | | |

UNIQUE IDENTIFIER:

| TEST RESULTS: | # Tested | # Positives (Growth) | - Control |
|---------------|----------|-------------------------|-------------|
| | 10 | 0 | 2 Negatives |

NA

TEST SUMMARY:

| MARY: | # Samples | Media Type | Volume (mL) | Incubation Temperature (° C) | Incubation Duration (Days) | |
|-------|--|------------|-------------|------------------------------------|----------------------------------|--|
| | 10 | тѕв | 40 | 20-25 | 14 | |
| | 10 | FTG | 40 | 30-35 | 14 | |
| E: | Processed according to LAB-003: Sterility Test Procedure | | | | | |

REFERENCE:

PD #:

TEST METHODOLOGY:

000053 USP - Direct Transfer

COMMENTS:

Report revised due to corrected Sample Number.

Reported as per packing slip.

REVIEWED BY

DATE 18MMLA

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.

STERIS Laboratories 9303 West Broadway Ave Brooklyn Park, MN 55445

PRINTED ON 3/17/2019

LAB-003 rev 32 Form 5 Effective: Nov 29, 2018 Page 1 of 1



Mycoplasma Assay Report

PCR-based assay performed by WiCell Lot Release Testing 22Feb19

| # | Sample Name | Result | Comments/Suggestions |
|---|------------------------------|----------|--|
| 1 | STAN366i-282C2-DB44383 14349 | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma |
| 2 | Positive (+) Control | Positive | |
| 3 | Negative (-) Control | Negative | |

Reported by: Gustavo Velazquez, Research Specialist - Cytogenentics **Reviewed by: Sondra Minter, Cell Culture Specialist** _____ Sent By:____ Sent To_____

Date:

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A gel image is available upon request.