# Thaw and Culture Details

<table>
<thead>
<tr>
<th>Cell Line Name</th>
<th>WC019i-SMA-GM13</th>
</tr>
</thead>
<tbody>
<tr>
<td>WiCell Lot Number</td>
<td>WB44684</td>
</tr>
<tr>
<td>Provider</td>
<td>University of Wisconsin – Laboratory of Dr. Su-Chun Zhang</td>
</tr>
<tr>
<td>Banked By</td>
<td>WiCell</td>
</tr>
<tr>
<td>Thaw and Culture</td>
<td>WiCell recommends thawing 1 vial into 3 wells of a 6 well plate.</td>
</tr>
<tr>
<td>Recommendations</td>
<td></td>
</tr>
<tr>
<td>Culture Platform</td>
<td>Feeder Independent</td>
</tr>
<tr>
<td></td>
<td>Medium: mTeSR™1</td>
</tr>
<tr>
<td>Protocol</td>
<td>WiCell Feeder Independent mTeSR™1 Protocol</td>
</tr>
<tr>
<td>Passage Number</td>
<td>p41</td>
</tr>
<tr>
<td>Date Vialled</td>
<td>03-September-2016</td>
</tr>
<tr>
<td>Vial Label</td>
<td>WC019i-SMA-GM13 p41 WB44684</td>
</tr>
</tbody>
</table>

## Testing Performed by WiCell

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Test Provider</th>
<th>Test Method</th>
<th>Test Specification</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karyotype by G-banding</td>
<td>WiCell</td>
<td>SOP-CH-003</td>
<td>Expected karyotype</td>
<td>Pass</td>
</tr>
<tr>
<td>Post-Thaw Viable Cell</td>
<td>WiCell</td>
<td>SOP-CH-305</td>
<td>≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and recoverable attachment after passage</td>
<td>Pass</td>
</tr>
<tr>
<td>Recovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity by STR</td>
<td>UW Translational Research Initiatives in Pathology Laboratory</td>
<td>PowerPlex 16 HS System by Promega</td>
<td>Defines profile</td>
<td>Pass</td>
</tr>
<tr>
<td>Sterility</td>
<td>Biotest Laboratories</td>
<td>ST/07</td>
<td>Negative</td>
<td>Pass</td>
</tr>
<tr>
<td>Mycoplasma</td>
<td>WiCell</td>
<td>SOP-QU-004</td>
<td>Negative</td>
<td>Pass</td>
</tr>
</tbody>
</table>

## Testing Reported by Provider

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

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karyotype by G-banding</td>
<td>Normal karyotype</td>
</tr>
<tr>
<td>Approval Date</td>
<td>Quality Assurance Approval</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>17-January-2018</td>
<td>X JKG</td>
</tr>
</tbody>
</table>

Quality Assurance
Signed by: Gay, Jenna
**Chromosome Analysis Report: 046773**

**Date Reported:** Friday, September 16, 2016  
**Cell Line:** WC019i-SMA-GM13-WB44684  
11838  
**Passage#:** 41  
**Date of Sample:** 9/13/2016  
**Specimen:** iPSC  
**Results:** 46,XY  
**Cell Line Gender:** Male  
**Reason for Testing:** lot release testing  
**Investigator:** [Redacted]  

**Interpretation:**

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

**Completed by:**  
**Reviewed and Interpreted by:** [Redacted]

A signed copy of this report is available upon request.

**Cell:** 20  
**Slide:** 3  
**Slide Type:** Karyotype  
**Total Counted:** 20  
**Total Analyzed:** 8  
**Total Karyogrammed:** 4  
**Band Resolution:** 475 - 600

**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.

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**Short Tandem Repeat Analysis**

**Sample Report:**
11838-STR  
**Sample Name on Tube:** 11838-STR  
63.6 ng/µL, (A260/280=1.79)  
**Sample Type:** Cells  
**Cell Count:** 2 million

**STR Locus** | **STR Genotype Repeat #**  
--- | ---  
TPOX | 6-13  
D8S1179 | 7-18  
vWA | 10-22  
Amelogenin | X,Y  
Penta D | 2.2,3.2,5.2,7-17  
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  
TH01 | 4-9,9.3,10-11,13.3  
D3S1358 | 12-20

**Results:** Based on the 11838-STR cells submitted by WiCell QA dated and received on 09/26/16, this sample (Label on Tube: 11838-STR) defines the STR profile of the human stem cell line WC019i-SMA-GM13 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

**Interpretation:** No STR polymorphisms other than those corresponding to the human WC019i-SMA-GM13 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 11838-STR sample submitted corresponds to the WC019i-SMA-GM13 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%.

**Digitally Signed on 09/30/16**

*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

WiCell Research Institute, Inc.
WiCell Quality Assurance
504 South Rosa Road, Room 101
Madison, WI 53719

BIOTEST SAMPLE # 16091533
VALIDATION # NG
TEST PURPOSE NG

PRODUCT
STAN0481-126-2 DB30969 11796, STAN0571-162-1 DB30966 11797, STAN0471-126-1, DB30963 11798, STAN0611-164-1 WB45344 11848, WC0191-SMA-GM13 WB44684 11849, R366.4 WB46792 11850, WC0201-SMA-GM14 WB46760 11851, UCSD2261-NDC2-1 DB26789 11852, UCSD2291-SAD1-1 DB26798 11853, UCSD2321-SAD2-1 DB26807 11854

PRODUCT LOT NA
STERILE LOT NA
STERILIZATION LOT NA
STERILIZATION DATE NA
STERILIZATION METHOD NA
SAMPLING BLDG / ROOM NA

BI LOT NA
BI EXPIRATION DATE NA
DATE INITIATED 2016-09-22
TEST INITIATED 2016-10-03
TEST COMPLETED 2016-10-17

REFERENCE Processed according to LAB-003: Sterility Test Procedure

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

☒ USP ☐ BI Manufacturers Specifications ☐ Other

RESULTS # POSITIVES # TESTED POSITIVE CONTROL NEGATIVE CONTROL
Sterile 0 10 NA 2 Negatives

COMMENTS NA

REVIEWED BY [Signature] DATE 180516

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.

The uncertainty of measurement associated with the measurement result reported in this certificate is available from the organization upon request.
### Mycoplasma Detection Assay Report

*Testing Performed by WiCell*

*Lot Release Test*

*September 16, 2016*

<table>
<thead>
<tr>
<th>#</th>
<th>Sample Name</th>
<th>A RLU</th>
<th>A Ave</th>
<th>B RLU</th>
<th>B Ave</th>
<th>B/A</th>
<th>Result</th>
<th>Comments/Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WC019i-SMA-GM13-WB44684 11838</td>
<td>103</td>
<td>97</td>
<td>100</td>
<td>45</td>
<td>46.5</td>
<td>0.47</td>
<td>Negative</td>
</tr>
<tr>
<td>2</td>
<td>Positive (+) Control</td>
<td>140</td>
<td>147</td>
<td>143.5</td>
<td>14695</td>
<td>14656</td>
<td>102.27</td>
<td>Positive</td>
</tr>
<tr>
<td>3</td>
<td>Negative (-) Control</td>
<td>303</td>
<td>298</td>
<td>300.5</td>
<td>36</td>
<td>36</td>
<td>0.12</td>
<td>Negative</td>
</tr>
</tbody>
</table>

#### Mycoplasma Detection Assay Results

![Mycoplasma Detection Assay Results Chart](chart.png)