



Thaw and Culture Details

Cell Line Name	MIN12i-33362.C
WiCell Lot Number	WB19545
Provider	Massachusetts General Hospital
Banked By	WiCell
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 5 wells of a 6 well plate.
Culture Platform	Feeder Independent
	Medium: mTeSR™1
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR™1 Protocol
Passage Number	p19 These cells were cultured for 18 passages prior to freeze. 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 19.
Date Vialied	12-May-2015
Vial Label	MIN12i-33362.C p19 WB19545
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.

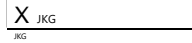
Testing Performed by WiCell

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

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

Approval Date	Quality Assurance Approval
09-October-2015	<div style="text-align: right;">10/11/2018</div> <div style="text-align: center;"> X JKG Quality Assurance Signed by Gay, Jenna</div>

Date Reported: Wednesday, September 26, 2018

Cell Line Sex: Male

Cell Line: MIN12i-33362.C-WB19545 14015

Reason for Testing: lot release testing

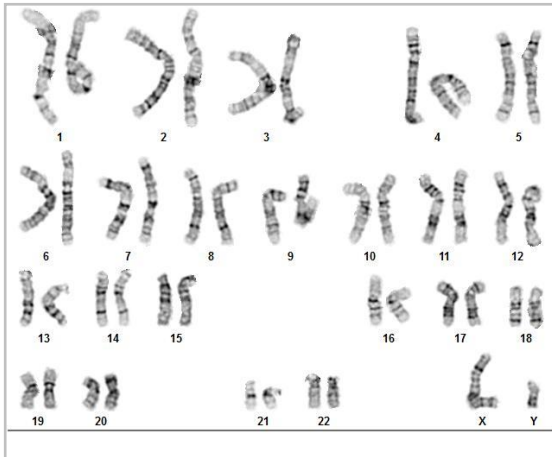
Passage#: 19

Date of Sample: 9/19/2018

Investigator: [REDACTED], WiCell

Specimen: Human IPS

Results: 46,XY



Cell: 16

Slide: G03

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyogrammed: 4

Band Resolution: 500 - 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

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:

14015-STR

Sample Name on Tube: 14015-STR

56.7 ng/μL, (A260/280=1.92)

Sample Type: Cells**Cell Count:** ~2 million cells**Requestor:**

WiCell Research Institute

Quality Department

Sample Date: N/A**Receive Date:** 09/24/18**Assay Date:** 09/25/18**File Name:** STR 180926 wmr**Report Date:** 10/01/18

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 14015-STR cells submitted by WiCell QA dated and received on 09/24/18, this sample (Label on Tube: 14015-STR) defines the STR profile of the human stem cell line MIN12i-33362.C comprising 26 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human MIN12i-33362.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 14015-STR sample submitted corresponds to the MIN12i-33362.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%.



Digitally Signed on 10/01/18

[Redacted], BA
TRIP Laboratory, Molecular

Digitally Signed on 10/01/18

[Redacted], PhD, Director / Co-Director
UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

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	# POSITIVES	# TESTED	POSITIVE CONTROL	NEGATIVE CONTROL
Sterile	0	10	NA	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 Testing
September 20, 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	RLU2				
1	MIN12i-33362.C-WB19545 14015	208	215	211.5	100	96	98	0.46	Negative	
2	Positive (+) Control	343	347	345	46171	46330	46251	134.06	Positive	
3	Negative (-) Control	701	711	706	93	89	91	0.13	Negative	

