Thaw and Culture Details

Cell Line Name	**B2M-/Etrimer Elf1**
WiCell Lot Number	**WB67154**
Provider	University of Washington – Dr. David Russell
Banked By	WiCell
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate.
Culture Platform	Feeder Dependent
	Medium: Elf1 cKoSR
	Matrix: MEF
Protocol	WiCell Feeder Dependent Protocol and Supplement Culture of Elf1 Cells
Passage Number	p14 These cells were cultured for 13 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 14.
Date Vialed	08-April-2019
Vial Label	B2M−/Etrimer Elf1 hESC p14 WB67154
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
	Results: 46,XX,del(18)(q21.3)[14]/46,XX,del(11)(q24),del(18)(q21.3)[4]/46,XX[2] ***Interpretation:*** This is an abnormal karyotype. There are two related abnormal clones. The cells in the predominant clone (fourteen of twenty cells examined; representative image on right) contain an interstitial deletion of the long (q) arm of chromosome 18. Loss of chromosome 18q is recurrently acquired in pluripotent stem cell cultures. The cells in the secondary clone (four of twenty cells examined; representative image on left) contain the deletion of chromosome 18 and a terminal deletion of the long (q) arm of chromosome 11. No other clonal abnormalities were detected at the stated band level of resolution.			
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 STR profile of deposited cell line	Pass
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-QU-004	Negative	Pass

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.

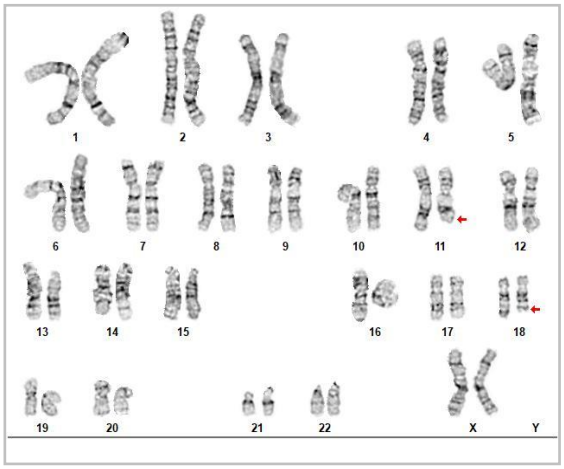
Test Description	Result	Report
Karyotype by G-banding	46,XX 90,XXXX,-	Report not available

Approval Date	Quality Assurance Approval
06-June-2019	5/8/2020 X HEB HEB Quality Assurance Signed by: Bruner, Haley

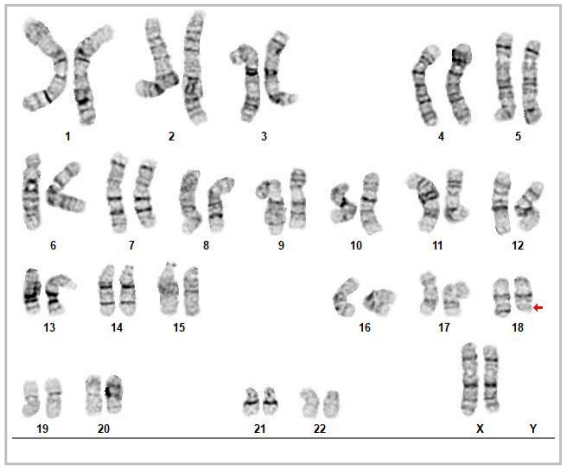
Chromosome Analysis Report: 076162

Date Reported: Tuesday, April 30, 2019
Cell Line Sex: Female
Cell Line: B2M-/Etrimer Elf1 hESC-WB67154 14555
Reason for Testing: lot release testing
Passage#: 14
Date of Sample: 4/18/2019
Investigator: [redacted], WiCell
Specimen: Human IPS
Results: 46,XX,del(18)(q21.3)[14]/46,XX,del(11)(q24),del(18)(q21.3)[4]/46,XX[2]

Cell: 12 **Slide: G01** **Slide Type: Karyotyping**



Cell: 51 **Slide: G03** **Slide Type: Karyotyping**



Total Counted: 20
Total Analyzed: 9
Total Karyogrammed: 4
Band Resolution: 450 - 500

Interpretation:

This is an abnormal karyotype. There are two related abnormal clones.

The cells in the predominant clone (fourteen of twenty cells examined; representative image on right) contain an interstitial deletion of the long (q) arm of chromosome 18. Loss of chromosome 18q is recurrently acquired in pluripotent stem cell cultures.

The cells in the secondary clone (four of twenty cells examined; representative image on left) contain the deletion of chromosome 18 and a terminal deletion of the long (q) arm of chromosome 11.

No other 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".

Case #: ***Cell Line:***

Short Tandem Repeat Analysis

TRIPath
HISTOLOGY - IHC - MOLECULAR - IMAGING
Department of Pathology and Laboratory Medicine
TRIP Laboratory (Molecular)
https://research.pathology.wisc.edu/trip-home/
(608) 265-9168

WiCell
Your Lab Partner
characterization@wicell.org
(608) 316-4145

Sample Report:
14555-STR
Sample Name on Tube: 14555-STR
69.7 ng/µL, (A260/280=1.90)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:
WiCell Research Institute
Quality Assurance Department

Receive Date: 04/29/19
Report Sent: 05/03/19
Assay Date: 05/01/19
File Name: STR 190501 wmr
Report Date: 05/03/19

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 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 14555-STR cells submitted by WiCell QA dated and received on 04/29/19, this sample (Label on Tube: 14555-STR) defines the STR profile of the human stem cell line B2M-/Etrimer Elf1 hESC comprising 27 allelic polymorphisms across the 15 STR loci analyzed.**

Interpretation: **No STR polymorphisms other than those corresponding to the human B2M-/Etrimer Elf1 hESC stem cell line were detected however, allelic imbalance (denoted by ** in table above) was observed at the D18S51 loci and could be the result of chromosomal gains, losses, and/or amplifications in this cell line. The signal strength of allele 18 at this loci is much less evident relative to allele 15. 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 14555-STR sample submitted corresponds to the B2M-/Etrimer Elf1 hESC 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 05/03/19**

[redacted], *BA*
TRIP Laboratory, Molecular

X *WMR* **Digitally Signed on 05/03/19**

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

Native Product Sterility Report

STERIS

SAMPLE #:	19050849
DATE RECEIVED:	09-May-19
TEST INITIATED:	15-May-19
TEST COMPLETED:	29-May-19

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

SAMPLE NAME / DESCRIPTION:

MCW057i-A3286 WB67153 14647
B2M−/Etrimer Elf1 WB67154 14648
MCW033i-A7195 WB67156 14649
MCW061i-40000329 WB67157 14650
MCW059i-40001067 WB67158 14651
MCW070i-40002330 WB67159 14652
B2M−/− Elf1 WB67160 14653
JHU210i WB67162 14654
MCW052i-40001760 WB67163 14655
B2M−/Edimer Elf1 WB67155 14656
MCW063i-40000190 WB67164 14657
MCW065i-40001296 WB67165 14658
B2M−/Edimer(preCre)Elf1 WB67166 14659
MCW069i-40000268 WB67167 14660
MCW093i-40000435 WB67168 14661
PACS1003i-GM27161 DB67161 14662
STAN011i-123-1 DB31129 14663
STAN012i-123-2 DB31135 14664
STAN015i-178-1 DB31094 14665
STAN016i-178-2 DB31107 14666

UNIQUE IDENTIFIER: NA

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

PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

Native Product Sterility Report

STERIS

COMMENTS: NA

REVIEWED BY _____ DATE 29May19

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.

Mycoplasma Assay Report

PCR-based assay performed by WiCell

WiCell

28May19

#	Sample Name	Result	Comments/Suggestions
1	B2M−/Etrimer Elf1-WB67154 14727	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- Cytogenetics
Reviewed by: Katie Remondini, Cell Culture Specialist
Date:_____ Sent By:____ Sent To_____

A gel image is available upon request.