

Thaw and Culture Details

Cell Line Name	CREM004i-SS2-1		
WiCell Lot Number	WB67570		
Parent Material	CREM004i-SS2-1-DB47977		
Provider	Boston University – Laboratory of Dr. Martin Steinberg		
Banked By	WiCell		
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate using mTeSR [™] 1 and Matrigel [®] .		
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol		
Culture Platform Prior to Freeze	Feeder Independent		
	Medium: mTeSR™1		
	Matrix: Matrigel®		
Passage Number	p14 These cells were cultured for 13 passages prior to freeze and post colony selection. WiCell adds +1 to the passage number at freeze to best represent the overall passage number of the cells at thaw. Plated cells at thaw should be labeled passage 14.		
Date Vialed	23-September-2020		
Vial Label	CREM004i-SS2-1 p14 WB67570		
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-49	Expected karyotype	See Report
Post-Thaw Viable Cell Recovery	WiCell	SOP-99	 ≥ 15 Undifferentiated Colonies prior to passage, ≤ 30% Differentiation prior to passage, and recoverable attachment after passage 	Pass
Identity by STR	WiCell	PowerPlex 16 HS System by Promega	Consistent with STR profile of deposited cell line	Pass
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-79	Negative	Pass

Testing Reported by Provider

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.

- Digital 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
18-November-2020	11/18/0020 XG Quality Assurance Signed by: Gay, Jenna

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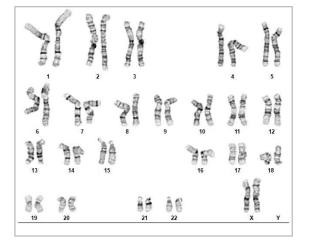
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Chromosome Analysis Report: 083042

Date Reported: Tuesday, October 6, 2020 Cell Line: CREM004i-SS2-1-WB67570 Submitted Passage #: 14 Date of Sample: 9/29/2020 Specimen: Human IPSC Results: 46,XX Cell Line Sex: Female Reason for Testing: LOT_RELEASE

Investigator: WiCell Stem Cell Bank, WiCell



Conditions of Service are null and void and of no legal force or effect.

Cell: 7 Slide: G03 Slide Type: Karyotype Total Counted: 20 Total Analyzed: 8 Total Karyogrammed: 4 Band Resolution: 500 - 550

Interpretation:

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

 Completed by:
 , CG(ASCP)

 Reviewed and Interpreted by:
 , 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



Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell Samples Received: 29Sep20, 06Oct20 STR Amplification Date: 08Oct20 Form SOP-89.01 Version 1.0

Sample Name	CREM004i-SS2-1- WB67570 p14	H9-hTnnT2-pGZ-TD2- WB67569 p40	PENN004i-277-1- DB36075 p14
Label on tube	83042 83043		83151
FGA			
ΤΡΟΧ			
D8S1179			
vWA			
Amelogenin		Identifying	
Penta_D		information has	
CSF1PO		been redacted to	
D16S539		protect donor confidentiality. If	
D7S820		more information	
D13S317		is required, please contact	
D5S818		info@wicell.org	
Penta_E			
D18551			
D21S11			
TH01			
D3S1358			
Allelic Polymorphisms	27	24	26
Matches*	67489		
Comments			

*Note: The STR profile of the following sample is an exact match for the given sample/samples.



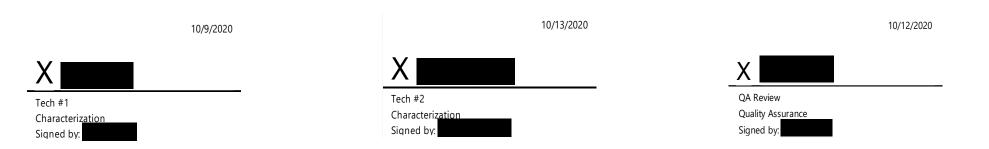
Short Tandem Repeat

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<u>Results</u>The genotypic profiles comprise a range of <u>24-27</u> allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: 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. These results suggests that the cells submitted correspond to the cell lines as named and were not contaminated with any other human 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 cell lines is ~2-5%.



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Raw data is available upon request.

Native Product Sterility Report



WiCell 504 S Rosa Road, Rm 101 Madison, WI 53719
 SAMPLE #:
 20100832

 DATE RECEIVED:
 15-Oct-20

 TEST INITIATED:
 22-Oct-20

 TEST COMPLETED:
 04-Nov-20

SAMPLE NAME / DESCRIPTION:

CREM004i-SS2-1-WB67570 H9-hTnnT2-pGZ-TD2-WB67569

MIN22i-33113.2I-WB67571 CRFi001-A-WB67573 CRFi002-A-WB67572 SCRP1103i-DB42716 SCRP1203i-DB42719 SCRP1307i-DB42723

UNIQUE IDENTIFIER:

TEST RESULTS:	1	# Positives	
	# Tested	(Growth)	- Control
	10	0	2 Negatives

N/A

TEST SUMMARY:	# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
	10	TSB	40	20-25	14
	10	FTG	40	30-35	14

REFERENCE: PD #: TEST METHODOLOGY:

000053 USP - Direct Transfer

Processed according to LAB-003: Sterility Test Procedure

(

COMMENTS: NA

REVIEWED BY

DATE 10 NOV2020

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 06Oct20

Sample Name	Result	Comments/Suggestions
CREM004i-SS2-1-WB67570 (83042)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
H9-hTnnT2-pGZ-TD2-WB67569 (83043)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
CRFi002-A-DB67541 (83110)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC149 02OCT20 AP (83116)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC169 MMM 03Oct20 1/3 (83131)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC169 MMM 03Oct20 2/3 (83132)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
INC169 MMM 03Oct20 3/3 (83133)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Reported by: ______, Cell Culture Specialist Reviewed by: ______, Senior Cell Culture Specialist

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A gel image is available upon request.