Certificate of Analysis

Thaw and Culture Details

Cell Line Name	**H1.CD43/CD144DR**	
WiCell Lot Number	**WB67964**	
Provider/Client	University of Wisconsin – Dr. Igor Slukvin	
Banked By	WiCell	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate using TeSR™-E8™ and Recombinant Human Vitronectin.	
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol	
Culture Platform Prior to Freeze	Medium: TeSR™-E8™	Matrix: Recombinant Human Vitronectin
Passage Number	p42 Cells were modified from WA01 at passage 26. Cells were modified again at passage 33. These cells were cultured for 8 passages post modification and prior to freeze. Plated cells at thaw should be labeled passage 42.	
Date Vialed	04-September-2022	
Vial Label	H1.CD43/CD144DR p42 WB67964	
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.	

Certificate of Analysis

Results

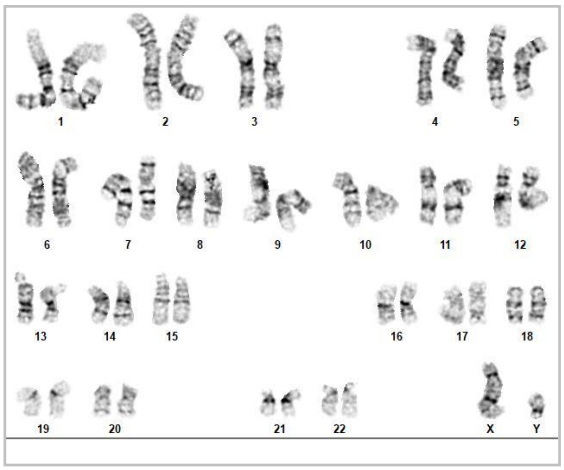
Test Description	Test Provider	Test Method	Test Specification	Result
Karyotype	WiCell	G-T-L Banding performed on 20 metaphase cells	Expected karyotype	See Report
	Results: 46,XY ***Interpretation:*** This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution.			
Post-Thaw Viable Cell Recovery	WiCell	Thaw using specified Thaw & Culture Recommendations	≥ 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	See Report
Mycoplasma	WiCell	PCR	Amplification of mycoplasma specific DNA detected with negative result	Pass
Sterility	Steris	Native Product Direct Transfer using FTM and TSB (ST/07)	Negative for growth following 14 days of culture	Pass

Approval Date	WiCell Quality Assurance Approval
12-October-2022	10/12/2022 X HEB HEB WiCell Quality Assurance Signed by: Bruner, Haley

Chromosome Analysis Report: 093806

Date Reported: Friday, September 30, 2022
Cell Line: H1.CD43/CD144DR-WB67964
Submitted Passage #: 42
Date of Sample: 9/13/2022
Specimen: Human Modified ESC
Results: 46,XY

Cell Line Sex: Male
Reason for Testing: LOT_RELEASE
Investigator: WiCell Stem Cell Bank, WiCell



Cell: 86
Slide: G02
Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8
Total Karyogrammed: 4
Band Resolution: 350 - 450

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

Completed by: Pam Mill
Reviewed and Interpreted by: Xiangqiang Shao, PhD

For internal use only

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".

Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell
Samples Received: 07Sep22, 08Sep22, 12Sep22, 13Sep22
STR Amplification Date: 17Sep22

Form SOP-89.01
Version 9.0

Sample Name	H1.CD43/CD144 DR-WB67964 p42	STAN358i-298C3-WB67955 p16	STAN311i-906C1-WB67956 p18	STAN175i-373C4-WB67963 p19	JHU253i-WB67951 p6	JHU097i-WB67950 p7	PENN035i-746-3-DB36398 p17
WiCell CTR No.[1]	93806	93785	93784	93783	93782	93760	93717
FGA	20, 24	[redacted]					
TPOX	8, 11						
D8S1179	12, 13						
vWA	15, 17						
Amelogenin	X, Y						
Penta_D	10, 13						
CSF1PO	12, 13						
D16S539	9, 13						
D7S820	8, 12						
D13S317	8, 11						
D5S818	9, 11						
Penta_E	10, 12						
D18S51	17, 18						
D21S11	28, 32.2						
TH01	9.3, 9.3						
D3S1358	15, 15						
Allelic Polymorphisms	28	28	26	29	26	29	28
Matches*	See Matches Comments	77573, 78410	80669, 81039	75198, 75279	76579	77720	
Comments							

Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact info@wicell.org

**Note: The STR profile of the following sample is a 100% match for the given sample/samples unless otherwise specified.*

[1] CTR No.: Characterization Test Request Number; also known as a laboratory accessioning number.

Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell
Samples Received: 07Sep22, 08Sep22, 12Sep22, 13Sep22
STR Amplification Date: 17Sep22

Assay Description: STR analysis is performed using the PowerPlex 16 HS System by Promega™. Results are reported as 13 CODIS STR markers, Amelogenin for gender determination and two low-stutter, highly discriminating pentanucleotide STR markers.

Results: The genotypic profiles comprise a range of 26-29 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 ~2-4%.

Matches: 93806 matches 100% to 86570, 86550, 82881, 82204, 82128, 82047, 80875, 80711, 77345, 75817, and other profiles. Additional matches provided upon request.

9/20/2022 X Molly Miles Tech #1 Characterization Signed by: Miles, Molly	9/21/2022 X Anna Lisa Larson Tech #2 Characterization Signed by: Larson, Anna Lisa	9/20/2022 X Hunter Hefti QA Review Quality Assurance Signed by: Hefti, Hunter

Mycoplasma Assay Report

PCR-based assay performed by WiCell

WiCell Stem Cell Bank, WiCell

19Sep22

Form SOP-83.01
Version 5.0

Sample Name	Result	Interpretation
[redacted]		
H1.CD43/CD144DR-WB67964 p42 (93806)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Assay Description
Sample is tested for presence of mycoplasma using EZ-PCR™ Mycoplasma Detection Kit (Sartorius).

9/19/2022 X Julia Graham Tech #1 Characterization Signed by: Graham, Julia	9/19/2022 X Justin Hobson Tech #2 Characterization Signed by: Hobson, Justin	9/19/2022 X Hunter Hefti QA Review Quality Assurance Signed by: Hefti, Hunter

A gel image is available upon request.

Native Product Sterility Report

STERIS

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

SAMPLE #: 22090682
DATE RECEIVED: 15-Sep-22
TEST INITIATED: 15-Sep-22
TEST COMPLETED: 29-Sep-22

SAMPLE NAME / DESCRIPTION:
STAN311i-906C1-WB67956
STAN358i-298C3-WB67955
STAN036i-49-2-DB30900
STAN035i-49-1-DB30894
STAN175i-373C4-WB67963
H1.CD43/CD144DR-WB67964
PENN172i-M15-10-DB36105
PENN131i-86-3-DB35107
PENN052i-444-2-DB34988
PENN133i-252-23-DB35139

UNIQUE IDENTIFIER: NA

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
10	0	2 Negatives

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: Processed according to LAB-003: Sterility Test Procedure
PD #: 000053
TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: NA

REVIEWED BY _____ DATE 30Sep2022