



Certificate of Analysis

Thaw and Culture Details

Cell Line Name	UCSD244i-LQT3-2	
WiCell Lot Number	DB68092	
Provider/Client	University of California, San Diego – Dr. Kelly Frazer	
Banked By	University of California, San Diego – Dr. Kelly Frazer	
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 2 wells of a 6 well plate using mTeSR™ 1 and Cultrex®. WiCell recommends thawing using ROCK Inhibitor for best results.	
Protocol	WiCell Feeder Independent Pluripotent Stem Cell Protocol	
Culture Platform Prior to Freeze	Medium: mTeSR™ 1	Matrix: Matrigel®
Passage Number	p13 Cells were cultured for 13 passages prior to freeze and post colony selection. Plated cells at thaw should be labeled passage 14.	
Date Viald	23-AUGUST-2022	
Vial Label	LQT3_4_28_HOMO_52 iPSC_P13 ADC_20220823	
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,XX,dup(20)(q11.2q11.2)[10]/46,XX[10] Interpretation: This is an abnormal karyotype. There is an interstitial duplication in the long (q) arm of chromosome 20 in ten of twenty cells examined. There is a known recurrent acquired duplication at this location in human pluripotent stem cell cultures; we recommend that this abnormality be confirmed by higher resolution testing. No other clonal abnormalities were detected at the stated band level of resolution.			
Post-Thaw Viable Cell Recovery	WiCell	Thaw using specified Thaw & Culture Recommendations	Recoverable attachment after passage	Pass
Identity by STR	WiCell	PowerPlex 16 HS System by Promega™	Defines 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
11-January-2024	<div>1/11/2024</div> <div>X HH</div> <div>HH</div> <div>WiCell Quality Assurance</div> <div>Signed by: Heff, Hunter</div>

Date Reported: Friday, August 4, 2023

Cell Line: UCSD244i-LQT3-2-DB68092

Submitted Passage #: 15

Date of Sample: 7/28/2023

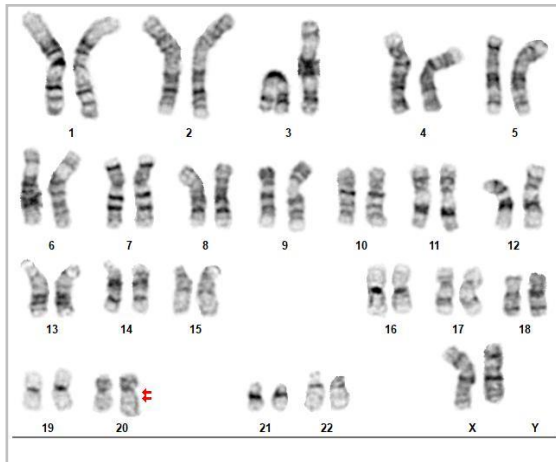
Specimen: Human Modified iPSC

Results: 46,XX,dup(20)(q11.2q11.2)[10]/46,XX[10]

Cell Line Sex: Female

Reason for Testing: LOT_RELEASE

Investigator: WiCell Stem Cell Bank, WiCell



Cell: 13

Slide: G02

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyogrammed: 4

Band Resolution: 400 - 450

Interpretation:

This is an abnormal karyotype. There is an interstitial duplication in the long (q) arm of chromosome 20 in ten of twenty cells examined. There is a known recurrent acquired duplication at this location in human pluripotent stem cell cultures; we recommend that this abnormality be confirmed by higher resolution testing. No other clonal abnormalities were detected at the stated band level of resolution.

Completed by: Davena Lira, CG(ASCP)

Reviewed and Interpreted by: Vanessa Horner, PhD, FACMG

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".

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.



Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell

Samples Received: 28Jul23

STR Amplification Date: 02Aug23

Form SOP-89.01

Version 10.0

Sample Name	UCSD244i- LQT3-2- DB68092 p15
WiCell CTR No. ¹	98078
FGA	Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact info@wicell.org
TPOX	
D8S1179	
vWA	
Amelogenin	
Penta_D	
CSF1PO	
D16S539	
D7S820	
D13S317	
D5S818	
Penta_E	
D18S51	
D21S11	
TH01	
D3S1358	
Allelic Polymorphisms	26
Matches*	See Matches Comment
Comments	

**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: 28Jul23

STR Amplification Date: 02Aug23

Form SOP-89.01

Version 10.0

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 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: Sample 98078 is a 100% match to 97709, 97621, 73192, 72643, 98009, 98010, 72297, 72296.

8/7/2023	8/10/2023	8/11/2023
<div>X Amber Kuhn</div> <div>Tech #1 Characterization Signed by: Kuhn, Amber</div>	<div>X Justin Hobson</div> <div>Tech #2 Characterization Signed by: Hobson, Justin</div>	<div>X Dawn Graham</div> <div>QA Review Quality Assurance Signed by: Graham, Dawn</div>

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Mycoplasma Assay Report

PCR-based assay performed by WiCell
WiCell Stem Cell Bank, WiCell
04Aug23

Form SOP-83.01
Version 5.0

Sample Name	Result	Interpretation
UCSD244i-LQT3-2-DB68092 p15 (98078)	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).

8/4/2023	8/4/2023	8/4/2023
X Julia Graham	X Justin Hobson	X Dawn Graham
Tech #1 Characterization Signed by: Graham, Julia	Tech #2 Characterization Signed by: Hobson, Justin	QA Review Quality Assurance Signed by: Graham, Dawn

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A gel image is available upon request.

Native Product Sterility Report



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

SAMPLE #: 23040601
DATE RECEIVED: 13-Apr-23
TEST INITIATED: 14-Apr-23
TEST COMPLETED: 28-Apr-23

SAMPLE NAME / DESCRIPTION:

PACS2iPS01-C5-DB68076
WA09-WB68097
HES7-NLuc-2A-tdtomato-DB68082
H9 T-2A-EGFP-PGK-DB68085
H1-Fucci-DB68086
H1 MYH11-NLuc-tdTomato-DB68087
HES7-NLuc-2A-tdtomato-DB68090
JHU255i-DB37129
JHU256i-DB37132
JHU257i-DB37136
UCSD242i-LQT1-1-DB68089
UCSD243i-LQT3-1-DB68091
UCSD244i-LQT3-2-DB68092
UCSD245i-CNTL-1-DB68093
UCSD246i-CNTL-2-DB68094
UCSD247i-LQT1-2-DB68095
UCSD182i-3-2-DB68096
JHU252i-DB37121
JHU013i-2-DB40951
JHU022i-DB40963

UNIQUE IDENTIFIER: N/A

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
20	1	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

Native Product Sterility Report



REFERENCE: Processed according to LAB-003: Sterility Test Procedure

PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: Sample #23040601

Sample labeled H1myh11 c5 p28 5cm2 jab 28AUG17 is positive for both TSB and FTG media.

AUTHORIZED BY

A handwritten signature in blue ink, appearing to be "AD", written over a horizontal line.

DATE 09 MAY 2023

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.