

Thaw and Culture Details

Cell Line Name	LUEL7756i-4						
WiCell Lot Number	WB66923						
Provider	Luebeck University, Dr. Christine Klein						
Banked By	WiCell						
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate.						
Culture Platform	Feeder Independent						
	Medium: mTeSR™1						
	Matrix: Matrigel®						
Protocol	WiCell Feeder Independent mTeSR [™] 1 Protocol						
Passage Number	p22 These cells were cultured for 21 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 22.						
Date Vialed	24-September-2018						
Vial Label	LUEL7756i-4 p22 WB66923						
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	SOP-CH-305 ≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and recoverable attachment after passage	
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

The provider has provided the following testing and results for this cell line. If available, a link to the relevant publication is provided on the cell line specific web page on the WiCell website.

Test Description	Result	Report
HIV, HBV, and HCV Screening	Negative	Report not available

©2018 WiCell Research Institute

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
20-November-2018	11/20/2018 XG Quality Assurance Signed by: Gay, Jenna

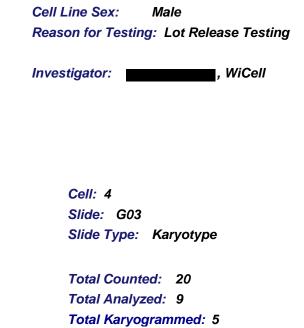
©2018 WiCell Research Institute

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.



Date Reported: Monday, November 05, 2018 Cell Line: LUEL7756i-4-WB66923 14075 Passage#: 22 Date of Sample: 10/30/2018 Specimen: Human IPS Results: 46,XY

26



Band Resolution: 475 - 550

Interpretation:

物日

20

The second se

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

98

2

Completed by: Reviewed and Interpreted by:	, P	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.



HISTOLOGY - IHC - MOLECULAR - IMAGING

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular) (608) 265-9168

Sample Report: 14075-STR Sample Name on Tube: 14075-STR 86.2 ng/µL, (A260/280=1.82) Sample Type: Cells Cell Count: ~2 million cells **Requestor:** WiCell Research Institute Quality Department

Short Tandem Repeat

Analysis

Sample Date: N/A Receive Date: 11/05/18 Assay Date: 11/06/18

Assay Date: 11/06/18 File Name: STR 181106 wmr Report Date: 11/09/18

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
ТРОХ	6-13	been redacted to
D8S1179	7-18	protect donor
vWA	10-22	confidentiality. If
Amelogenin	X,Y	more information
Penta D	2.2, 3.2, 5, 7-17	is required,
CSF1PO	6-15	please, contact
D16S539	5, 8-15	WiCell's Technical
D7S820	6-14	Support.
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	

<u>Results:</u> Based on the 14075-STR cells submitted by WiCell QA dated and received on 11/05/18, this sample (Label on Tube: 14075-STR) defines the STR profile of the human stem cell line LUEL7756i-4 comprising 26 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human LUEL7756i-4 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 14075-STR sample submitted corresponds to the LUEL7756i-4 stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells.

<u>Sensitivity</u>: 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 11/12/18	X WMR Digitally Signed on 11/12/18
, BA	, PhD, Director / Co-Director
TRIP Laboratory Molecular	UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laborator

Testing was accomplished by analysis of human genetic polymorphisms at STR loci. This methodology has not yet been approved by the FDA and is for investigational use only. Acknowledge TRIP in your publications, posters & presentations. For details, see: http://www.pathology.wisc.edu/research/trip/acknowledging TRIP agrees to maintain the confidentiality of any information provided to it in connection with its performance of this STR analysis on the same conditions as set forth in paragraph 2 of WiCell's Terms and Conditions of Service (http://www.wicell.org/media.acux/1a429b84-2b54-44a4-8ad8-5c05db93dd8a).



Native Product Sterility Report



				SAMPLE #:	18100500		
WiCell				DATE RECEIVED:	04-Oct-18		
504 S Rosa Rd, Rm 101				TEST INITIATED:	17-Oct-18		
Madison, WI 53719				TEST COMPLETED:	31-Oct-18		
SAMPLE NAME / DES	SCRIPTION:	STAN099i-108C2 DE CREM027i-SS41-1 V					
		LUEL8360i-5 WB669					
		LUEL8364i-1 WB669					
		LUEL7756i-4 WB669	923 14043				
		LUEL7996i-10 WB66	5924 14044				
		LUEL7994i-2 WB669	925 14045				
		LUEL7756i-2 WB668					
		WISC015i-SC7 WB6	6893 14048				
		STAN100i-108C4 DB44605 14052					
UNIQUE IDENTIFIER	1:	NA					
PRODUCT REGISTR	ATION:	Other: Human iPS c	ells				
TEST RESULTS:	# Tested	# Positives (Growth)					
	10						
	10	0	2 Negatives	Sand Suddensor			

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

REFERENCE: METHOD VALIDATION / PD #: TEST METHODOLOGY:

Processed according to LAB-003: Sterility Test Procedure 000053 USP - Direct Transfer

COMMENTS:

NA

REVIEWED BY

DATE OGNOVI8

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.



Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing November 1, 2018 FORM SOP-QU-004.01 Version G Edition 02 Reported by: AP Reviewed by: JB BD Monolight 180

		Read	ing A	Α	Read	ling B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	LUEL7756i-4-WB66923 14075	335	330	332.5	159	161	160	0.48	Negative	
2	Positive (+) Control	423	430	426.5	46434	47000	46717	109.54	Positive	
3	Negative (-) Control	693	694	693.5	78	78	78	0.11	Negative	

