

### **Thaw and Culture Details**

Cell Line Name	STAN093i-081C1
WiCell Lot Number	WB67435
Provider	Stanford University – Laboratory of Dr. Thomas Quetermous
Banked By	WiCell
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate using mTeSR1 <sup>™</sup> and Matrigel <sup>®</sup>
Protocol	WiCell Feeder Independent mTeSR1 <sup>™</sup> Protocol
Culture Platform Prior to Freeze	Feeder Independent
	Medium: mTeSR1™
	Matrix: Matrigel®
Passage Number	p18 These cells were cultured for 17 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 18.
Date Vialed	28-February-2020
Vial Label	STAN093i-081C1 p18 WB67435
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
	WiCell	SOP-CH-003	Expected karyotype	See Report
	Results: 46,XX,dup(20)	(q11.2q11.2)[4]/47,XX	,+12[2]/46,XX[14]	
	Interpretation: This is a	an abnormal karyotype	e. There are two unrelated abnorma	l clones.
	The cells in the predomina	ant clone (four of twent	ty cells examined; representative im	age on the right)
Karvotype by G-banding	contain an interstitial dupli	cation in the long (q) a	rm of chromosome 20. There is a k	nown recurrent
raijetype by e banang	acquired duplication at this	s location in human plu	uripotent stem cell cultures; we reco	mmend that this
	abnormality be confirmed	by higher resolution te	sting. The cells in the secondary clo	one (two of
	twenty cells examined; rep	presentative image on	the left) contain an additional copy	of chromosome
	12. Gain of chromosome 12 is recurrently acquired in pluripotent stem cell cultures. No other clonal			
	abnormalities were detected	ed at the stated band I	evel of resolution.	[
Post-Thaw Viable Cell			≥ 15 Undifferentiated Colonies	
Recoverv			prior to passage,	_
	WiCell	SOP-CH-305	$\leq$ 30% Differentiation prior to	Pass
			passage, and recoverable	
			attachment after passage	
Identity by STR	UW Translational	PowerPlex 16 HS	Defines STR profile of deposited	_
	Research Initiatives in	System by	cell line	Pass
	Pathology Laboratory	Promega		_
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-CH-044	Negative	Pass

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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.



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.

- RNA-Seq
- Whole Genome Sequencing

Approval Date	Quality Assurance Approval
30-July-2020	7/18/0023 X Ryen Smith Mis Quality Assurance Signed by Smith, Ryen

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Date Reported:Friday, March 13, 2020Cell Line Sex:FemaleCell Line:STAN093i-081C1-WB67435Reason for Testing:LOT\_RELEASEPassage#:18Date of Sample:3/6/2020Investigator:WiCell Stem Cell Bank, WiCellSpecimen:Human IPSC

Results: 46,XX,dup(20)(q11.2q11.2)[4]/47,XX,+12[2]/46,XX[14]





Total Counted: 20 Total Analyzed: 9 Total Karyogrammed: 5 Band Resolution: 425 - 475

### Interpretation:

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

The cells in the predominant clone (four of twenty cells examined; representative image on the right) contain an interstitial duplication in the long (q) arm of chromosome 20. 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.

The cells in the secondary clone (two of twenty cells examined; representative image on the left) contain an additional copy of chromosome 12. Gain of chromosome 12 is recurrently acquired in pluripotent stem cell cultures.

No other clonal abnormalities were detected at the stated band level of resolution.

Completed by: Reviewed and Interpreted by:		, CG(ASCP) , 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

#### Case #: 080794

#### Cell Line: STAN093i-081C1-WB67435

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 or effect.



# Short Tandem Repeat Analysis



characterization@wicell.org (608) 316-4145

**Receive Date: 03/09/20 Report Sent: 03/16/20** Assay Date: 03/10/20 File Name: STR 200311 wmr **Report Date: 03/16/20** 

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

### Sample Report:

STAN093i-081C1-WB67435 p.18 (80794)

80.9 ng/uL, (A260/280=1.79) Sample Type: DNA Cell Count: N/A

**Requestor:** WiCell Research Institute Characterization Department

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
TPOX	6-13	information has
D8S1179	7-18	been redacted to
vWA	10-22	protect donor
Amelogenin	X,Y	more information
Penta D	2.2, 3.2, 5, 7-17	is required,
CSF1PO	6-15	please, contact
D168539	5, 8-15	WiCell's Technical
D7S820	6-14	Support.
D13S317	7-15	
D5S818	7-16	
Penta_E	5-24	
D18851	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	
<b>TH01</b>	4-9,9.3,10-11,13.3	
D3S1358	12-20	

Results: Based on the STAN093i-081C1-WB67435 p.18 (80794) DNA submitted by WiCell Characterization Department dated and received on 03/09/20, this sample (Label on Tube: STAN093i-081C1-WB67435 p.18 (80794)) defines the STR profile of the human cell line STAN093i-081C1 comprising 27 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human STAN093i-081C1 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 STAN093i-081C1-WB67435 p.18 (80794) sample submitted corresponds to the STAN093i-081C1 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 cell lines is ~2-5%.

X RMB Digitally Signed on 03/16/20	X WMR Digitally Signed on 03/16/20
BA TRIP Laboratory, Molecular	, PhD, Director / Co-Director UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory
Testing was accomplished by analysis of human genetic polymorphisms at STR loci. The	his 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: https://research.pathology.wisc.edu/acknowledging-trip/ 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 https://www.wicell.org/media.acux/ca76d97c-862a-43f3-b02a-ab2d1e619100. 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.

# Native Product Sterility Report



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

20061484	SAMPLE #:
25-Jun-20	DATE RECEIVED:
01-Jul-20	TEST INITIATED:
15-Jul-20	TEST COMPLETED:

SAMPLE NAME / DESCRIPTION:

SCRP0307i-WB67453 STAN093i-081C1-WB67435 SCRP0402i-DB42018 GFAP-R416W-WB67486 GFAP-R416R-WB67485 GFAP-R88R-WB67491 MIN09i-33114.C-WB67492 CHB8-DB66974

UNIQUE IDENTIFIER:

NA

TEST RESULTS:		# Positives	
	# Tested	(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

# Native Product Sterility Report



REFERENCE:	Processed according to LAB-003: Sterility Test Procedure
PD #:	000053
TEST METHODOLOGY:	USP - Direct Transfer
COMMENTS: NA	
REVIEWED BY	characteristics of any other samples from the same lot or similar lots. This test report shall not be approval. Liability is limited to the costs of the tests Besults applied to samples as received



### Mycoplasma Assay Report

PCR-based assay performed by WiCell WiCell 11Mar20

Sample Name	Result	Comments/Suggestions
MCW087i-U7112-WB67434 (80753)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
STAN093i-081C1-WB67435 (80754)	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
Positive (+) Control	Positive	
Negative (-) Control	Negative	

Reported by: Assistant Research Specialist Reviewed by: Assistant Research Specialist

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A gel image is available upon request.