

Product Information and Testing

Product Information

| Product Name | MIRJT7i-mND2-0 | | | | | |
|-------------------------------|---|--|--|--|--|--|
| Alias | mND2-0 | | | | | |
| Lot Number | WB0248 | | | | | |
| Parent Material | MIRJT7i-mND2-0-WB0119 | | | | | |
| Depositor | Morgridge Institute for Research – Laboratory of Dr. James Thomson | | | | | |
| Banked by | WiCell | | | | | |
| Thaw Recommendation | Thaw 1 vial into 1 well of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results. | | | | | |
| Culture Platform | Feeder Independent | | | | | |
| | Medium: E8 – WiCell recommends to passage using ROCK Inhibitor for best results. | | | | | |
| | Matrix: Matrigel | | | | | |
| Protocol | WiCell Feeder Independent E8 Medium Protocol | | | | | |
| Passage Number | p28 | | | | | |
| | These cells were cultured for 27 passages prior to freeze, at least 7 passages in E8/Matrigel. WiCell adds +1 to the passage number at freeze so that the number on the vial best represents the overall passage number of the cells at thaw. | | | | | |
| Date Vialed | 20-May-2013 | | | | | |
| Vial Label | WB0248 MIRJT7i-mND2-0 P28 LK 20MAY13 | | | | | |
| 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 |
|--------------------------------|--|--------------------------------------|---|--------|
| Post-Thaw Viable Cell Recovery | WiCell | SOP-CH-305 | ≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and recoverable attachment after passage | Pass |
| Identity by STR | UW Molecular Diagnostics Laboratory | PowerPlex 16 HS System by Promega | Consistent with known profile | Pass |
| Sterility | Biotest Laboratories | ST/07 | Negative | Pass |
| Mycoplasma | WiCell | SOP-QU-004 | Negative | Pass |
| Karyotype by G-banding | WiCell | SOP-CH-003 | Expected karyotype | Pass |

| Date of Lot Release | Quality Assurance Approval | | |
|---------------------|---|--|--|
| | 1/25/2019 | | |
| 15-July-2013 | X RK | | |
| | RK Quality Assurance Signed by: Kremers, Erik | | |



Histocompatibility/Molecular Diagnostics Laboratory

University of Wisconsin Hospital and Clinics

Short Tandem Repeat Analysis*

Sample Report: 10798-STR

Label on Tube: 10798-STR

Sample Date: 06/24/13 Lab Received 06/24/13

Requestor: WiCell Research Institute

Test Date: 06/26/13

File Name: 130627 BLB

Report Date: 07/01/13

Sample Name: (label on tube) 10798-STR

Description: WI Cell Research Institute provided

genomic DNA

232.75 ug/mL 260/280=1.97

| Locus | Repeat # | STR Genotype |
|------------|-----------|--------------|
| D16S539 | 5, 8-15 | |
| D7S820 | 6-14 | |
| D13S317 | 7-15 | |
| D5S818 | 7-15 | |
| CSF1PO | 6-15 | |
| TPOX | 6-13 | |
| Amelogenin | NA | |
| TH01 | 5-11 | |
| vWA | 11, 13-21 | |

Comments: Based on the 10798-STR DNA submitted by WI Cell dated and received on 06/24/13, this sample (Label on Tube: 10798-STR) exactly matches the STR profile of the human stem cell line MIRJT7i-mND2-0 comprising 15 allelic polymorphisms across the 8 STR loci analyzed. No STR polymorphisms other than those corresponding to the human stem cell line MIRJT7i-mND2-0 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 10798-STR DNA sample submitted corresponds to the MIRJT7i-mND2-0 stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells. Sensitivity limits for detection of STR polymorphisms unique to either this or other human stem cell lines is ~5%.

Date

Molecular Diagnostics Laboratory

Molec

07/01/ Date

Molecular Diagnostics Laboratory

^{*} Testing to assess engraftment following bone marrow transplantation 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.

Sterility Report

Biotest Laboratories, Inc.

Making life-saving products possible

| WiCell Research Institute, WiCell Quality Assurance | Inc. | | BIOTEST SAMPLE # | 13060494 |
|--|-------------------------------------|----------------|--------------------------|--|
| Wiceli addiny Assardince | | | VALIDATION # | NG |
| | | | TEST PURPOSE | NG |
| PRODUCT | Please see packing lis | st under prod | uct name. | |
| PRODUCT LOT | NA | | | |
| STERILE LOT | NA | | BI LOT | NA |
| STERILIZATION LOT | NA | | BI EXPIRATION DATE | NA |
| STERILIZATION DATE | NA | | DATE RECEIVED | 2013-06-11 |
| STERILIZATION METHOD | NA | | TEST INITIATED | 2013-06-12 |
| SAMPLING BLDG / ROOM | NA | | TEST COMPLETED | 2013-06-26 |
| REFERENCE | Processed according | to LAB-003: \$ | Sterility Test Procedure | |
| | | | | mL FTG. The samples were ere monitored for a minimum |
| | ☐ USP ☐ BI Manufacturers Sp ☐ Other | pecifications | | |
| RESULTS Sterile | # POSITIVES 0 | # TESTED 5 | POSITIVE CONTR NA | OL NEGATIVE CONTROL 2 Negatives |
| COMMENTS NA REVIEWED BY | | | DATE _ | 26JUN13 |

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. Liability is limited to the costs of the tests.

Biotest Laboratories •

Form: M-002 rev. 11

Effective: 13JUN13





Packing Slip



Sent to: Sterility Testing Services BiotestLabs, Sterility Testing Services Date: 05Jun13

| Product Name | Condition | | |
|------------------------------|-----------|--|--|
| MIRJT7i-mND2-0-WB0248 #10787 | -80 | | |

13060494 sur JUN 12 2013



Mycoplasma Report

Testing Performed by WiCell

Mycoplasma LRT/CDM Lab 6-21-201

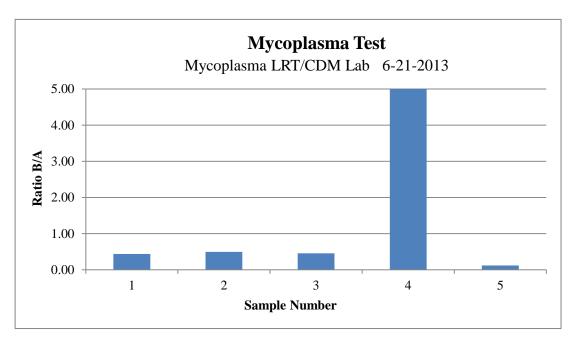
Version B Edition 01

Assay performed and reported by: MWS

Reviewed by: JB

Equipment: Monolight 3010

| | Readi | ng A | Α | Read | ing B | В | Ratio | | |
|------------------------|-------|------|---------|-------|-------|---------|-------|--------------------|----------------------|
| Sample Number and ID | A1 | A2 | Average | B1 | B2 | Average | B/A | Mycoplasma Results | Comments/Suggestions |
| 1 10798 LK | 398 | 385 | 391.5 | 169 | 173 | 171 | 0.44 | Negative | |
| 2 10802 LK | 454 | 457 | 455.5 | 228 | 223 | 225.5 | 0.50 | Negative | |
| 3 10800 MWS | 561 | 561 | 561 | 253 | 259 | 256 | 0.46 | Negative | |
| 4 Positive (+) Control | 504 | 508 | 506 | 40286 | 41560 | 40923 | 80.88 | Positive | |
| 5 Negative (-) Control | 1133 | 1169 | 1151 | 145 | 134 | 139.5 | 0.12 | Negative | |





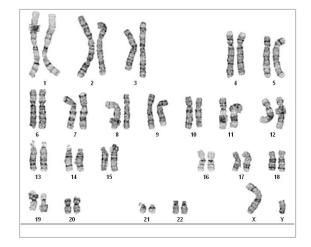
Chromosome Analysis Report: 011104

Date Reported: Friday, June 28, 2013 Cell Line: MIRJT7i-mND2-0-WB0248 10798

Passage#: 30

Date of Sample: 6/21/2013

Specimen: iPSC Results: 46,XY



Cell Line Gender: Male

Reason for Testing: lot release testing

Investigator:

WiCell CDM

QC Review By:

Cell: 32 Slide: 2

Slide Type: Karyotype

Total Counted: 20 Total Analyzed: 8 Total Karyotyped: 4

Band Resolution: 400 - 500

Interpretation:

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

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

Sent By:

cell populations in this specimen (i.e., mosaicism) is limited by the number of metaphase cells examined, documented here as "# of cells counted".

A signed copy of this report is available upon request.

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

Sent To:

This assay was conducted solely for listed investigator/institution. The results may not be relied upon by any other party without the prior written consent of the Director of the WiCell Cytogenetics Laboratory. The results of this assay are for research use only. If the results of this assay are to be used for any other purpose, contact the Director of the WiCell Cytogenetics Laboratory.