



Cell Line Authentication Service

Mouse STR Profile Report

Sample Submitted By: John Smith
Email Address: jsmith@atcc.org
ATCC Sales Order: SO0003456
FTA Barcode: MUSA0001
Cell Line Designation: RAW 264.7
Date Sample Received: Tuesday August 27, 2019
Report Date: Friday August 30, 2019

Methodology: Eighteen Mouse short tandem repeat (STR) loci were analyzed. Two additional markers (Human D8 and D4) to screen for the presence of human or African green monkey species were also utilized. Each sample was processed using the ABI Prism® 3500xl Genetic Analyzer. Data were analyzed using GeneMapper® ID-X v1.2 software (Applied Biosystems). Appropriate positive and negative controls were run and confirmed for each assay set.

Data Interpretation: Cell lines were authenticated using Short Tandem Repeat (STR) analysis as described in the National Institute of Standards and Technology (NIST) granted U.S. patent (No. 9,556,482). Database matching followed the Tanabe matching algorithm to compare the number of shared alleles between the submitted sample profile and the reference profile, expressed as a percentage.¹ The allele match algorithm compares all 18 mouse loci.

ATCC performs STR Profiling following ISO 9001:2015 and ISO/IEC 17025:2017 quality standards.

There are no warranties with respect to the services or results supplied, express or implied, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. ATCC is not liable for any damages or injuries resulting from receipt and/or improper, inappropriate, negligent or other wrongful use of the test results supplied, and/or from misidentification, misrepresentation, or lack of accuracy of those results. Your exclusive remedy against ATCC and those supplying materials used in the services for any losses or damage of any kind whatsoever, whether in contract, tort, or otherwise, shall be, at the suppliers option, refund of the fee paid for such service or repeat of the service.

The ATCC trademark and trade name, any and all ATCC catalog numbers are trademarks of the American Type Culture Collection. Applied Biosystems, ABI Prism and GeneMapper are registered trademarks of Life Technologies Corporation. All primers used in this assay are described in (US Patent, Pub. No.: US 2017/0101677 A1).

Technical questions?

ATCC Technical Support
(800) 638-6597 / +1 703-365-2700
tech@atcc.org

Ordering questions?

800-638-6597 or 703-365-2700
Fax 703-365-2750
Email: sales@atcc.org



Cell Line Authentication Service

Mouse STR Profile Report

FTA Barcode: MUSA0001

ATCC Sales Order: SO0003456

Test Results for Submitted Sample					ATCC Reference Database Profile			
Locus	Query Profile: RAW 264.7				Database Profile: TIB-71, RAW 264.7; Mouse (Mus musculus)			
18-3	18				18			
4-2	22.3				22.3			
6-7	12				12			
19-2	14				14			
1-2	17				17			
7-1	25.2				25.2			
1-1	15	16			15	16		
3-2	14				14			
8-1	13				13			
2-1	16				16			
15-3	22.3				22.3			
6-4	18				18			
11-2	17				17			
17-2	14	16			14	16		
12-1	16				16			
5-5	14				14			
X-1	24				24			
13-1	16.2				16.2			
Number of shared alleles between query sample and database profile:								20
Total number of alleles in the query sample profile:								20
Total number of alleles in the database profile:								20
Percent match between the submitted sample and the database profile:								100

Explanation of Test Results

Cell lines with $\geq 80\%$ match are considered to be related; i.e., derived from a common ancestry. Cell lines with a percent match between a 55 - 80% require further investigation for authentication of relatedness.

- The submitted sample profile is an exact match for the following ATCC cell line(s) in the ATCC mouse STR database: **TIB-71**
- The submitted sample profile is mouse, however a matching reference profile has not previously been established in the ATCC mouse STR database.
- The submitted profile is similar to the following ATCC cell line(s):
- An STR profile could not be generated from the submitted sample.

Human and/or African Green Monkey Species Detection

- Human and/or African green monkey has been detected in the submitted sample profile (see attached electropherogram at Human D8 & D4 loci).

Additional Comments:

The submitted sample profile for **RAW 264.7** is an exact match to the ATCC cell line **TIB-71**.



Cell Line Authentication Service

Mouse STR Profile Report

Addendum: Comparative Output from the ATCC Mouse STR Profile Database

FTA Barcode:
ATCC Sales Order:

% Match	100	100
ATCC® Cat. No.		TIB-71
Designation	RAW 264.7	RAW 264.7
18-3	18	18
4-2	22.3	22.3
6-7	12	12
19-2	14	14
1-2	17	17
7-1	25.2	25.2
1-1	15,16	15,16
3-2	14	14
8-1	13	13
2-1	16	16
15-3	22.3	22.3
6-4	18	18
11-2	17	17
17-2	14,16	14,16
12-1	16	16
5-5	14	14
X-1	24	24
13-1	16.2	16.2

Definitions of terms used in this report:

Artifact:

A non-allelic product of the amplification process, an anomaly of the detection process, or a by-product of primer synthesis.

Pull-up:

A term used to describe when signal from one dye color channel produces artificial peaks in another, usually adjacent, color.

Spike:

An extraneous peak resulting from dust, dried polymer, an air bubble, or an electrical surge.

Dye blob:

Free dye not coupled to primer that can be injected into the capillary.

e-Signature, Technician:	
e-Signature, Reviewer:	

Reference:

1. Tanabe H, et al. Cell line individualization by STR multiplex system in the cell bank found cross-contamination between ECV304 and EJ-1/T24. Tiss Cult Res Commun 18:329-38, 1999.