

Cell Line Authentication Service

STR Profiling Report

Sample From: Guangdong Provincial
People's Hospital

Sample Type: Cell Line

Testing Method: STR Genotyping

Report Time: 12/24/2021

COMPANY STATEMENT

1. THIS REPORT IS ONLY RESPONSIBLE FOR THE SAMPLES ANALYZED.
2. THE TESTING RESULTS AND THE ORGANIZATION NAME WILL NOT BE USED FOR ADVERTISEMENT, COMMERCIAL EXHIBITIONS, COMMERCIAL PERFORMANCE AND OTHER COMMERCIAL ACTIVITIES.
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Cell Line Authentication – STR Profiling Report

Sample code

Table 1. Sample Code

Customer's code	Company Code
ME-180	20211224-01

Sample Number: 1

Sample Type: Cell line

Testing Type: STR

Testing Method:

DNA was extracted by a commercial kit from CORNING (AP-EMN-BL-GDNA-250G). The twenty STRs including Amelogenin locus were amplified by six multiplex PCR and separated on ABI 3730XL Genetic Analyzer. The signals were then analyzed by the software GeneMapper.

Data Interpretation:

Cell lines were authenticated using Short Tandem Repeat (STR) analysis as described in 2012 in ANSI Standard (ASN-0002) by the ATCC Standards Development Organization (SDO) and in Capes-Davis et al., Match criteria for human cell line authentication: Where do we draw the line? *Int J Cancer*.2013;132(11):2510-9.

Test Results

1. STR profile

Table 2. STR and Amelogenin Genotyping Results of Cell line.

Loci	Sample information			Cell Bank information		
	Sample name : ME-180			Cell line name : ME-180		
	Allele1	Allele2	Allele3	Allele1	Allele2	Allele3
D5S818	12			12		
D13S317	11	13		11	13	
D7S820	9	10		9	10	
D16S539	12	13		12	13	
VWA	15	17		15	17	
TH01	8	9.3		8	9.3	
AMEL	X			X		
TPOX	8	10		8	10	
CSF1PO	11			11		
FGA	23					
Penta E	12	14				
Penta D	9	14				
D21S11	30	31				
D18S51	12					
D8S1179	14					
D3S1358	16					
D19S433	13	15.2				
D2S1338	18					

2. database annotation

Figure 1. STR matching analysis

Cell line name	ME-180																																				
Synonyms	Me-180; ME 180; ME180																																				
Accession	CVCL_1401																																				
Resource Identification Initiative	To cite this cell line use: ME-180 (RRID:CVCL_1401)																																				
Comments	Part of: Cancer Dependency Map project (DepMap) (includes Cancer Cell Line Encyclopedia - CCLE). Part of: COSMIC cell lines project. Part of: Naval Biosciences Laboratory (NBL) collection (transferred to ATCC in 1982). Characteristics: Contains a complete HPV68 genome. Doubling time: 1.5 days (PubMed=29156801). Microsatellite instability: Stable (MSS) (Sanger). Transformant: NCBI_TaxID; 45240; Human papillomavirus type 68 (HPV68). Omics: Deep exome analysis. Omics: Deep proteome analysis. Omics: Deep RNAseq analysis. Omics: DNA methylation analysis. Omics: Protein expression by reverse-phase protein arrays. Omics: SNP array analysis. Omics: Transcriptome analysis.																																				
Species of origin	Homo sapiens (Human) (NCBI Taxonomy: 9606)																																				
Sex of cell	Female																																				
Age at sampling	66Y																																				
Category	Cancer cell line																																				
STR profile	<p>Source(s): ATCC; CCRID; Cosmic-CLP; JCRB; KCLB; PubMed=22710073; PubMed=25877200; PubMed=29156801; RCB; TKG</p> <p>Markers:</p> <table border="1"> <tr> <td>Amelogenin</td> <td>X</td> </tr> <tr> <td>CSF1PO</td> <td>11</td> </tr> <tr> <td>D2S1338</td> <td>18</td> </tr> <tr> <td>D3S1358</td> <td>16</td> </tr> <tr> <td>D5S818</td> <td>12</td> </tr> <tr> <td>D7S820</td> <td>9,10</td> </tr> <tr> <td>D8S1179</td> <td>14</td> </tr> <tr> <td>D13S317</td> <td>11,12 (PubMed=22710073) 11,13 (ATCC; CCRID; Cosmic-CLP; JCRB; KCLB; PubMed=25877200; PubMed=29156801; RCB; TKG)</td> </tr> <tr> <td>D16S539</td> <td>12,13</td> </tr> <tr> <td>D18S51</td> <td>12</td> </tr> <tr> <td>D19S433</td> <td>13,15.2</td> </tr> <tr> <td>D21S11</td> <td>30,31</td> </tr> <tr> <td>FGA</td> <td>23</td> </tr> <tr> <td>Penta D</td> <td>9,14</td> </tr> <tr> <td>Penta E</td> <td>12,14</td> </tr> <tr> <td>TH01</td> <td>8 (RCB) 8,9.3 (ATCC; CCRID; Cosmic-CLP; JCRB; KCLB; PubMed=22710073; PubMed=25877200; PubMed=29156801; TKG)</td> </tr> <tr> <td>TPOX</td> <td>8,10</td> </tr> <tr> <td>vWA</td> <td>15,16,17 (JCRB) 15,17 (ATCC; CCRID; Cosmic-CLP; KCLB; PubMed=22710073; PubMed=25877200; PubMed=29156801; RCB; TKG)</td> </tr> </table> <p>Run an STR similarity search on this cell line</p>	Amelogenin	X	CSF1PO	11	D2S1338	18	D3S1358	16	D5S818	12	D7S820	9,10	D8S1179	14	D13S317	11,12 (PubMed=22710073) 11,13 (ATCC; CCRID; Cosmic-CLP; JCRB; KCLB; PubMed=25877200; PubMed=29156801; RCB; TKG)	D16S539	12,13	D18S51	12	D19S433	13,15.2	D21S11	30,31	FGA	23	Penta D	9,14	Penta E	12,14	TH01	8 (RCB) 8,9.3 (ATCC; CCRID; Cosmic-CLP; JCRB; KCLB; PubMed=22710073; PubMed=25877200; PubMed=29156801; TKG)	TPOX	8,10	vWA	15,16,17 (JCRB) 15,17 (ATCC; CCRID; Cosmic-CLP; KCLB; PubMed=22710073; PubMed=25877200; PubMed=29156801; RCB; TKG)
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Note: The STR online match analysis of the test cell against EXPASY database, showing cell number (Cell No.) and cell name.

3. Authentication

- The submitted sample profile is human, but not a match for any profile in the DSMZ STR database.
- The submitted profile is an exact match for the following human cell line(s) in the EXPASY STR database (8 core loci plus Amelogenin) **ME-180**.
- The submitted profile is similar to the following DSMZ human cell line: /.

- **Note:** A cell line can be considered to be authenticated when 80% (exact match) of the

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alleles in its STR profile match profiles from tissue or other cell line samples from that donor or from database. Cell lines with between a 55% to 80% (similar) match require further profiling for investigation of relatedness.

Appendix:

1. Genotyping Strategy and Site Distribution

Table S1. Experimental Strategy and Sites

	Strategy 1	Strategy 2	Strategy 3	Strategy 4
1	D3S1358	D8S1179	D19S433	AMEL
2	VWA	D21S11	TH01	D1S1656
3	D7S820	D16S539	D13S317	D5S818
4	CSF1PO	D2S1338	TPOX	D12S391
5	PENTAE	PENTAD	D18S51	FGA
6	D6S1043			

The allele match algorithm compares the 8 core loci plus amelogenin only, even though alleles from all loci will be reported when available.

2. DSMZ tools was used to carry on the cell line comparison, which contains 2455 cell lines STR data from ATCC, DSMZ, JCRB ,ECACC, GNE and RIKEN databases. If the cell is not included in the above cell library, users need to compared with other databases.

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Checked by: Ning Qian

Issued by: Yang Bai

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