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# Cell Line Authentication Service

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## STR Profiling Report

**Sample From:**

**Sample Type:** Cell Line

**Testing Method:** STR Genotyping

**Report Time:** Jun.28.2020



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## 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.
3. OBJECTIONS SHOULD BE RAISED WITHIN FIFTEEN DAYS AFTER THE RECEIPT OF THIS REPORT.
4. THE PAPER REPORT WITH CONTENT ALTERING, ADDING OR WITHOUT THE STAMPED SEAL OF THE COMPANY ARE INVALID.

**Testing Company:** Shanghai BiowingApplied Biotechnology Co. Ltd

**Address:** Room 205, NO.885 Wangjiashe Road, Songjiang District, Shanghai

**Tel:** +86-021-33559491

**Contact:** Wenyao Zhang

**E-mail:**market@biowing.com.cn



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## Cell Line Authentication – STR Profiling Report

### Sample code

Table 1. Sample Code

Customer's code	Company Code
HepG2	20200622-01

**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.



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# Test Results

## 1. STR profile

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

Loci	Sample information			Cell Bank information		
	Sample name: HepG2			Cell line name: GS-HepG2		
	Allele1	Allele2	Allele3	Allele1	Allele2	Allele3
D5S818	11	12		11	12	
D13S317	9	13		9	13	
D7S820	10	10		10	10	
D16S539	12	12		12	12	
VWA	17	17		17	17	
TH01	9	9		9	9	
AMEL	X	Y		X	Y	
TPOX	8	9		8	9	
CSF1PO	10	11		10	11	
D12S391	21	25				
FGA	22	25				
D2S1338	19	20				
D21S11	29	31				
D18S51	13	14				
D8S1179	15	16				
D3S1358	15	16				
D6S1043	13	13				
PENTAE	15	20				
D19S433	15.2	15.2				



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PENTAD	9	13	
D1S1656	11	12	

## 2. 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 DSMZ STR database (8 core loci plus Amelogenin):GS-HepG2.

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 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.

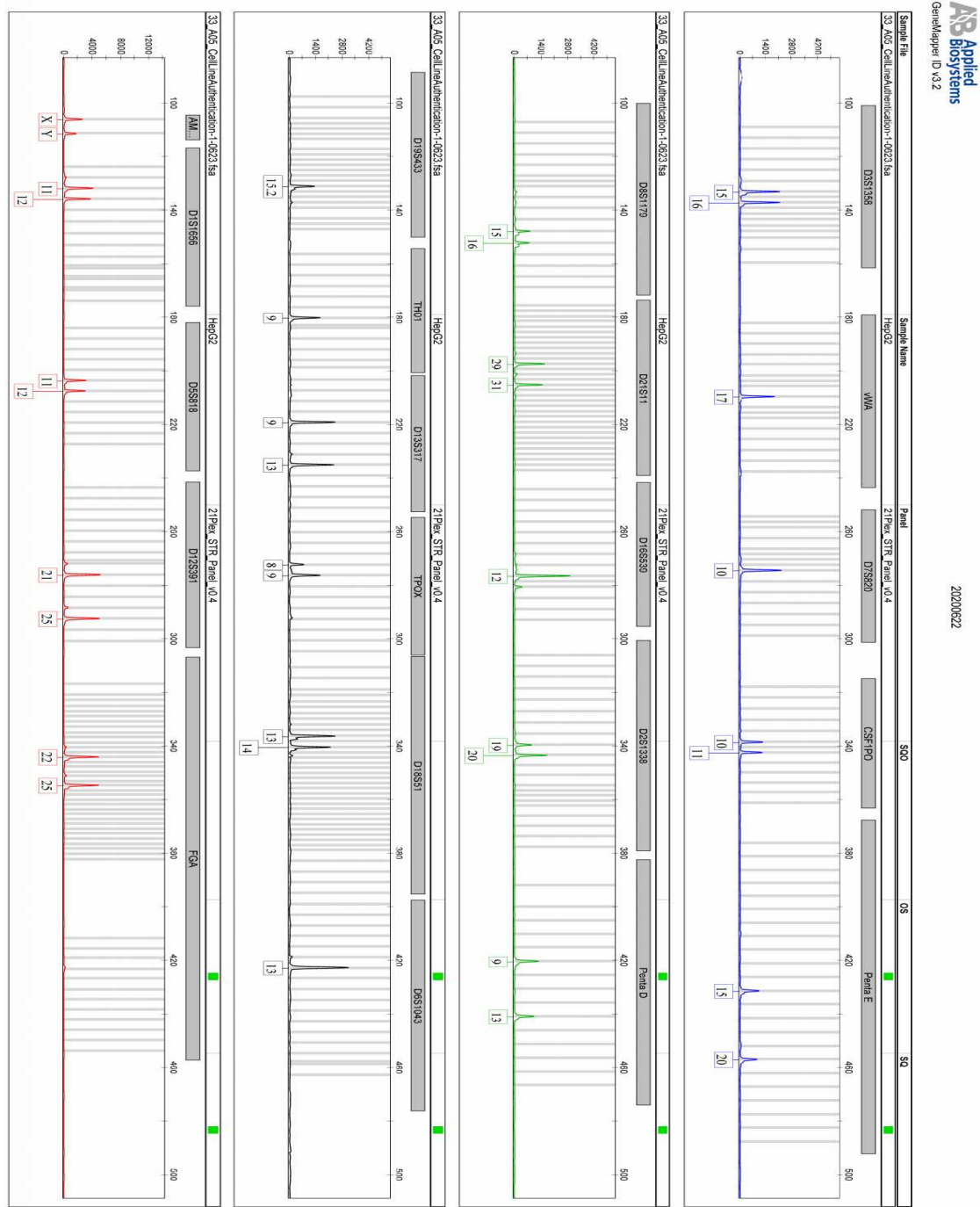
EV	Cell No.	Cell name	Locus names								Figures	
			D5S818	D13S317	D7S820	D16S539	VWA	TH01	AM	TPOX		CSF1PO
		<i>Query (Your Cell)</i>	<i>11,12</i>	<i>9,13</i>	<i>10,10</i>	<i>12,12</i>	<i>17,17</i>	<i>9,9</i>	<i>X,Y</i>	<i>8,9</i>	<i>10,11</i>	
1.00(36/36)	RCB1681	GS-HepG2	11,12	9,13	10,10	12,12	17,17	9,9	X,Y	8,9	10,11	-
0.94(34/36)	180	HEP-G2	11,12	9,13	10,10	12,13	17,17	9,9	X,Y	8,9	10,11	-
0.94(34/36)	CRL-11997	HEP G2/2.2.1	11,12	9,13	10,10	12,13	17,17	9,9	X,Y	8,9	10,11	-
0.94(34/36)	HB-8065	Hep G2	11,12	9,13	10,10	12,13	17,17	9,9	X,Y	8,9	10,11	-
0.94(34/36)	HB-8065.1	HepG2/SF	11,12	9,13	10,10	12,13	17,17	9,9	X,Y	8,9	10,11	-



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# Appendix:



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## 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 compare with other databases.

**Technician:** Jianan Zhang

**Checked by:** Chenqian Zhang

**Issued by:** Yang Bai

**Issue date:** Jun.28.2020





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**Report Time:** Jun.28.2020

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## Cell Line Authentication – STR Profiling Report

### Sample code

Table 1. Sample Code

Customer's code	Company Code
HuH7	20200622-02

**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.



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# Test Results

## 1. STR profile

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

Loci	Sample information			Cell Bank information		
	Sample name: HuH7			Cell line name: HuH-7		
	Allele1	Allele2	Allele3	Allele1	Allele2	Allele3
D5S818	12	12		12	12	
D13S317	10	11		10	11	
D7S820	11	11		11	11	
D16S539	10	10		10	10	
VWA	18	18		16	18	
TH01	7	7		7	7	
AMEL	X	X		X	X	
TPOX	7	8	11	8	11	
CSF1PO	11	11		11	11	
D12S391	20	20				
FGA	22	23				
D2S1338	19	19				
D21S11	30	30				
D18S51	15	15				
D8S1179	14	14				
D3S1358	15	15				
D6S1043	13	15	16			
PENTAE	11	11				
D19S433	14	16				



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PENTAD	12	12	
D1S1656	16	16	

## 2. 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 DSMZ STR database (8 core loci plus Amelogenin):HuH-7.

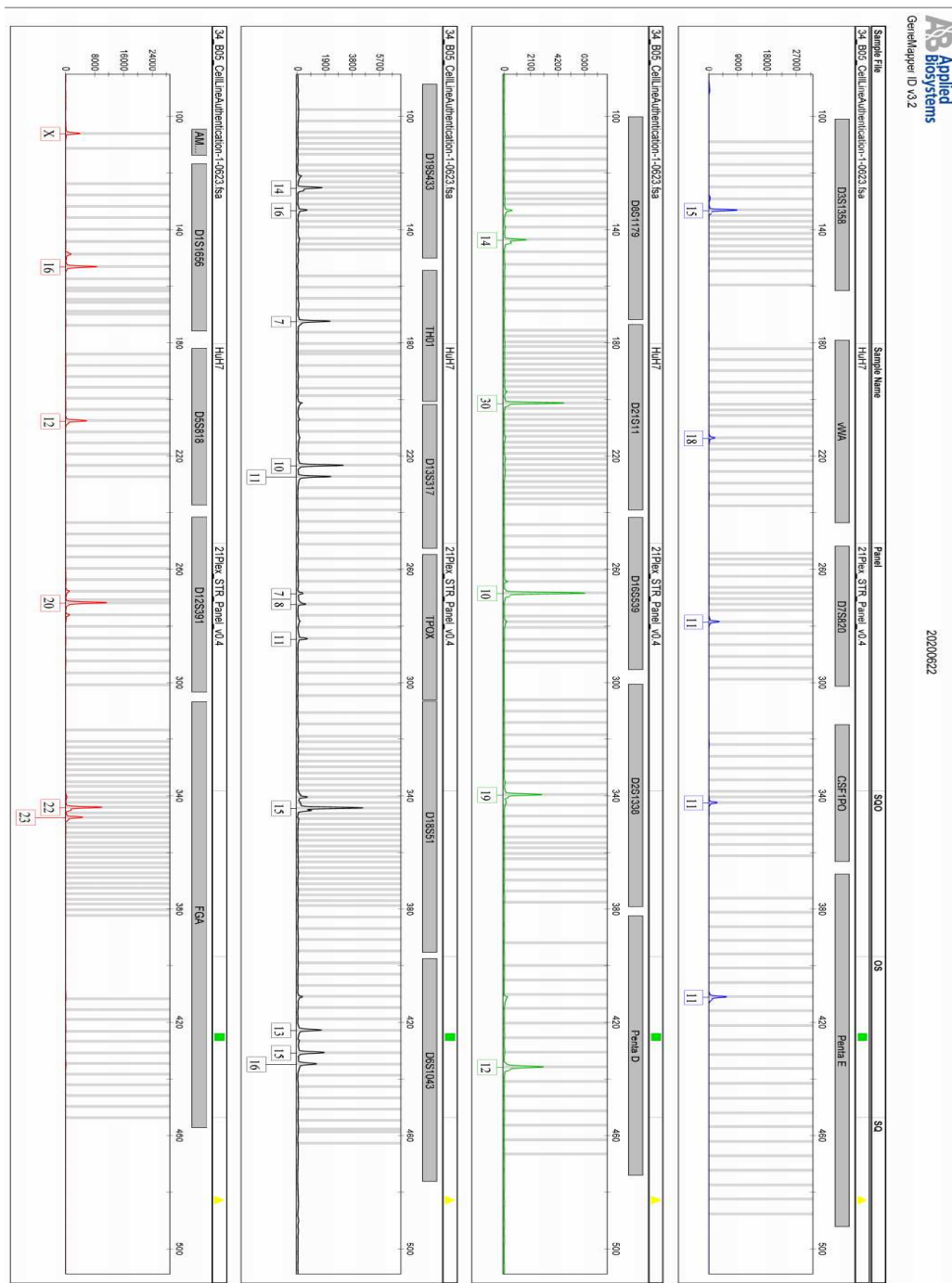
The submitted profile is similar to the following DSMZ human cell line: /.

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		<i>Query (Your Cell)</i>	<i>12,12</i>	<i>10,11</i>	<i>11,11</i>	<i>10,10</i>	<i>18,18</i>	<i>7,7</i>	<i>X,X</i>	<i>7,8,11</i>	<i>11,11</i>	
0.92(34/37)	JCRB0403	HuH-7	12,12	10,11	11,11	10,10	16,18	7,7	X,X	8,11	11,11	-
0.86(32/37)	RCB1366	HuH-7	12,12	10,10	11,11	10,10	16,18	7,7	X,X	8,11	11,11	-
0.65(24/37)	34	P12-ICHIKAWA	12,13	10,11	11,12	9,10	18,18	6,9	X,X	8,11	11,13	-
0.65(24/37)	661	UPCI-SCC-172	12,12	11,11	9,11	10,10	17,18	9,3,9,3	X,X	11,11	11,11	-
0.65(24/37)	CRL-3190	UACC2715	10,10	12,12	11,11	13,13	18,18	7,7	X,X	8,11	11,11	-
0.65(24/37)	CRL-3190	UACC2715	10,10	12,12	11,11	13,13	18,18	7,7	X,X	8,11	11,11	-



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