

# Cell Line Authentication Service

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## STR Profiling Report

**Sample From:** the First Affiliated Hospital  
of Zhengzhou University

**Sample Type:** Cell Line

**Testing Method:** STR Genotyping

**Report Time:** 3/30/2020

## 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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4. THE PAPER REPORT WITH CONTENT ALTERING, ADDING OR WITHOUT THE STAMPED SEAL OF THE COMPANY ARE INVALID.

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## Cell Line Authentication – STR Profiling Report

### Sample code

Table 1. Sample Code

Customer's code	Company Code
Nthy-ori3-1	20200324-01

**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: Nthy-ori3-1			Cell line name: Nthy-ori3-1		
	Allele1	Allele2	Allele3	Allele1	Allele2	Allele3
CSF1PO	12	12		12	12	
D3S1358	14	16		14	16	
D5S818	11	11		11	11	
D7S820	7	12		7	12	
D8S1179	12	12		12	12	
D13S317	11	11		11	11	
D16S539	12	13		12	13	
D18S51	14	14		14	14	
AMEL	X	X		X	X	
FGA	21	22				
TH01	7	7				
TPOX	9	9				
vWA	16	18				
D21S11	29	30				

## 2. database annotation

Figure 1. STR matching analysis

Cell line name	Nthy-ori 3-1
Synonyms	Nthy ori 3.1; Nthy-ori 3.1; NTHY-ORI3.1; HTori-3.1
Accession	CVCL_2659
Resource Identification Initiative	To cite this cell line use: Nthy-ori 3-1 (RRID:CVCL_2659)
Comments	Transformant: NCBI_TaxID; 1891767; Simian virus 40 (SV40). Omics: SNP array analysis. Omics: Transcriptome analysis.
Species of origin	Homo sapiens (Human) (NCBI Taxonomy: 9606)
Hierarchy	Parent: CVCL_4W02 (HTori-3)
Sex of cell	Female
Age at sampling	35Y
Category	Transformed cell line
STR profile	Source(s): ECACC; PubMed=21868764; PubMed=30737244
	Markers:
	Amelogenin X
	CSF1PO 12
	D3S1358 14,16
	D5S818 11
	D7S820 7,12
	D8S1179 12
	D13S317 11
	D16S539 12,13
	D18S51 14
	D21S11 29,30
	FGA 21,22
	TH01 7 (ECACC; PubMed=21868764) 7,9,3 (PubMed=30737244)
	TPOX 9
VWA 16,18	
<a href="#">Run an STR similarity search on this cell line</a>	

**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): **Nthy-ori3-1**.

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.

# 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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