

293 cells STR report

Method: An appropriate amount of 293 cells (Cell number XB0422-0195, 1×10^6) was used to extract DNA, 20 STR loci and gender identification loci were amplified by 21 CELLID System, PCR product detection was performed by ABI3130x1 genetic analyzer, detection results were analyzed by GeneMapper IDX software (Applied Biosystems), and compared with ATCC, DSMZ, JCRB, Cellosaurus and other databases.

Experimental result:

1. The results of negative and positive control were correct.
2. The genotyping results of STR locus of 293cell line are shown in the following table.

Conclusion:

1. The genomic DNA of 293 cell line is clear and the result of genotyping is good.
2. The DNA typing of the cell line was 98.31% matched with the cell type in the cell bank, and the cell line name was HEK293.

Appendix I: The genotyping results of STR locus of 293 cell line

STR Loci	Sample: 293 (Cell number: XB0422-0195)	Database: HEK293
Amelogenin	X,X	X
CSF1PO	11,12	11,12
D2S1338	19,19	19
D3S1358	15,17	15,17
D5S818	8,9	8,9
D7S820	11,11	11,12
D8S1179	12,14	12,14
D13S317	12,14	12,14
D16S539	9,13	9,13
D18S51	17,18	17,18
D19S433	18,18	18
D21S11	28,30.2	28,30.2
FGA	23,23	23
PentaD	9,10	9,10
PentaE	7,15	7,15
TH01	7,9.3	7,9.3
TPOX	11,11	11
vWA	16,19	16,19
D1S1656		
D6S1043	11,11	
D12S391	19,21	
D2S411	11,15	
The Cellosaurus database has a matching rate of 98.31%, The number of matched bits is 17 (https://web.expasy.org/cellosaurus-str-search/)		

Note:

1. According to the cell STR identification standard established by the International Cell Line Authentication Committee (ICLAC), when the matching degree of cell lines is $\geq 80\%$, they are considered to be correlated, that is, derived from common ancestral cells; The matching degree is between 55% and 80%, and the correlation needs to be further verified. Less than 55% indicates no correlation between the two.
2. The effective peak of the map was the real PCR band; Small peaks and nonspecific bands were ignored in the calculation.

Appendix II: The genotyping results of STR locus of 293 cell line

