

MC3T3-E1 cell STR identification

● Experimental Procedures

Sample DNA was extracted using the Vazyme Cellular Genomic DNA Extraction Kit, amplified using the Read Microgene Mouse-derived STR Site Detection Kit, signal collection was performed by Applied Biosystems SeqStudio Genetic Analyzer, and locus analysis was performed using Genemapper software 6.

Prepare the reaction system in a PCR tube according to the following system:

Content	Volume
PCR Master Mix	5.0 µl
Primer Mix	2.5 µl
Sample	30 ng
DEPC water	To 10.0 µl

Amplification reactions were performed in a PCR instrument with the following reaction program:

Temperature	Time	Cycle
95°C	5 min	N/A
94°C	10 s	28-30 cycles
61°C	1 min	
70°C	30 s	
60°C	15 min	N/A

Prepare electrophoresis samples in PCR tubes: denature at 95°C for 3 min → cool at 4°C for 3 min and collect data on the machine.

Content	Volume
Hi-Di™ Formamide	8.5 µl
SIZE	0.5 µl
Sample	1.0 µl

● Experimental results

Sample Number	Database	Matching Cells	Matching Degree	Description
MC3T3-E1	ATCC, DSMZ	MC3T3-E1	94.74%	Matching

Analysis of sample locus report values

Loci	MC3T3-E1 Sample STR Reported Value			MC3T3-E1 database reference values		
	AL1	AL2	AL3	AL1	AL2	AL3
18-3	12.2	15		15		
4-2	20.3			20.3		
6-7	17			17		
19-2	13			13		
1-2	19			19		
7-1	26.2			26.2		
1-1	16	17		16	17	
3-2	14			14		
8-1	16			16		
2-1	16			16		
15-3	22.3			22.3		
6-4	18			18		
11-2	16			16		
17-2	16			16		
12-1	17			17		
5-5	17			17		
X-1	19	28		28		
13-1				16.1		

Cellular STR peak plot

AB Applied Biosystems
GeneMapper Software 6

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