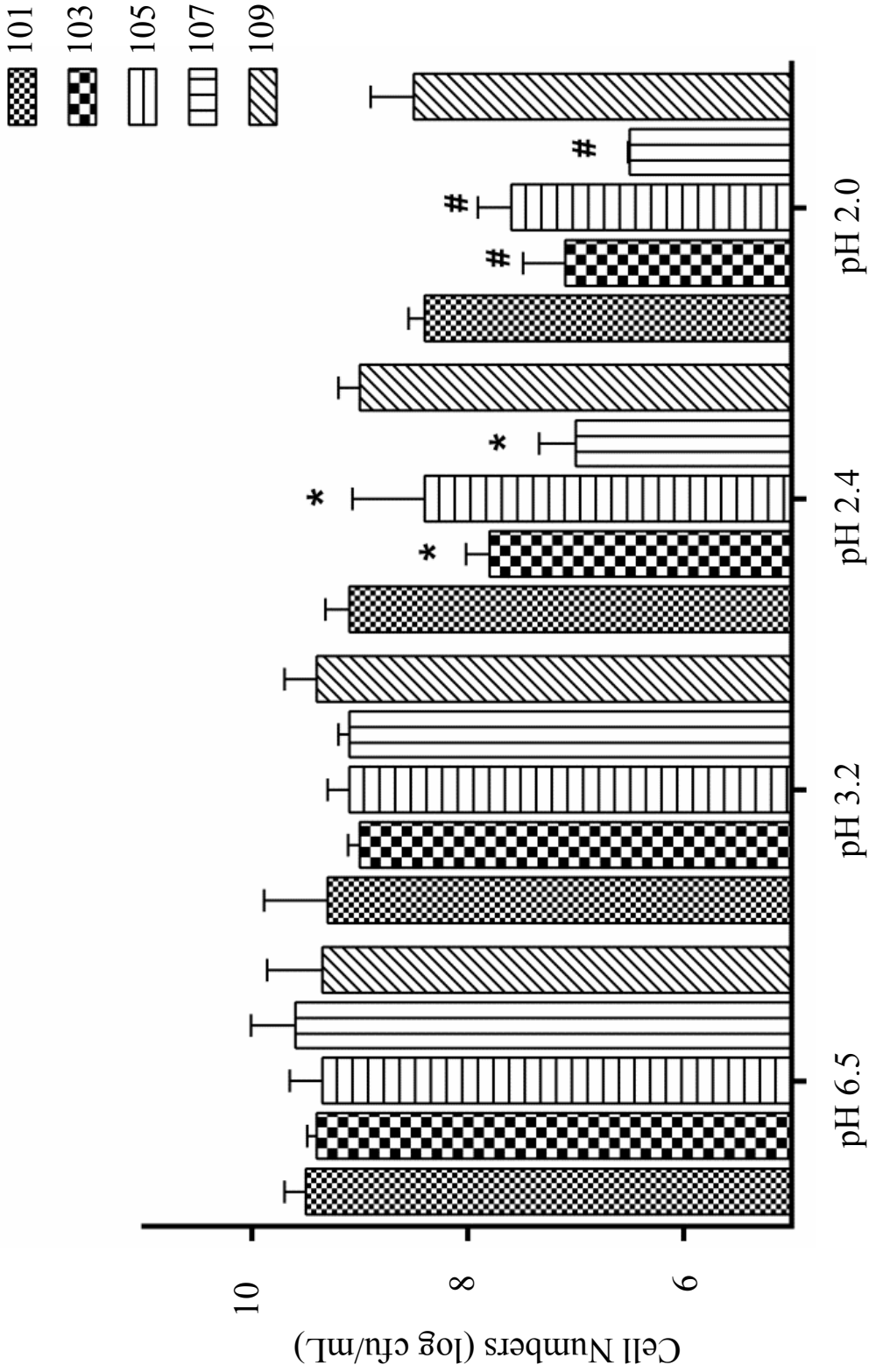

101
103
105
107
109
Cell Numbers (log cfu/mL)
10
8
6
pH 6.5
pH 3.2
pH 2.4
pH 2.0
*
*
*
#
#
#

Fig. 1

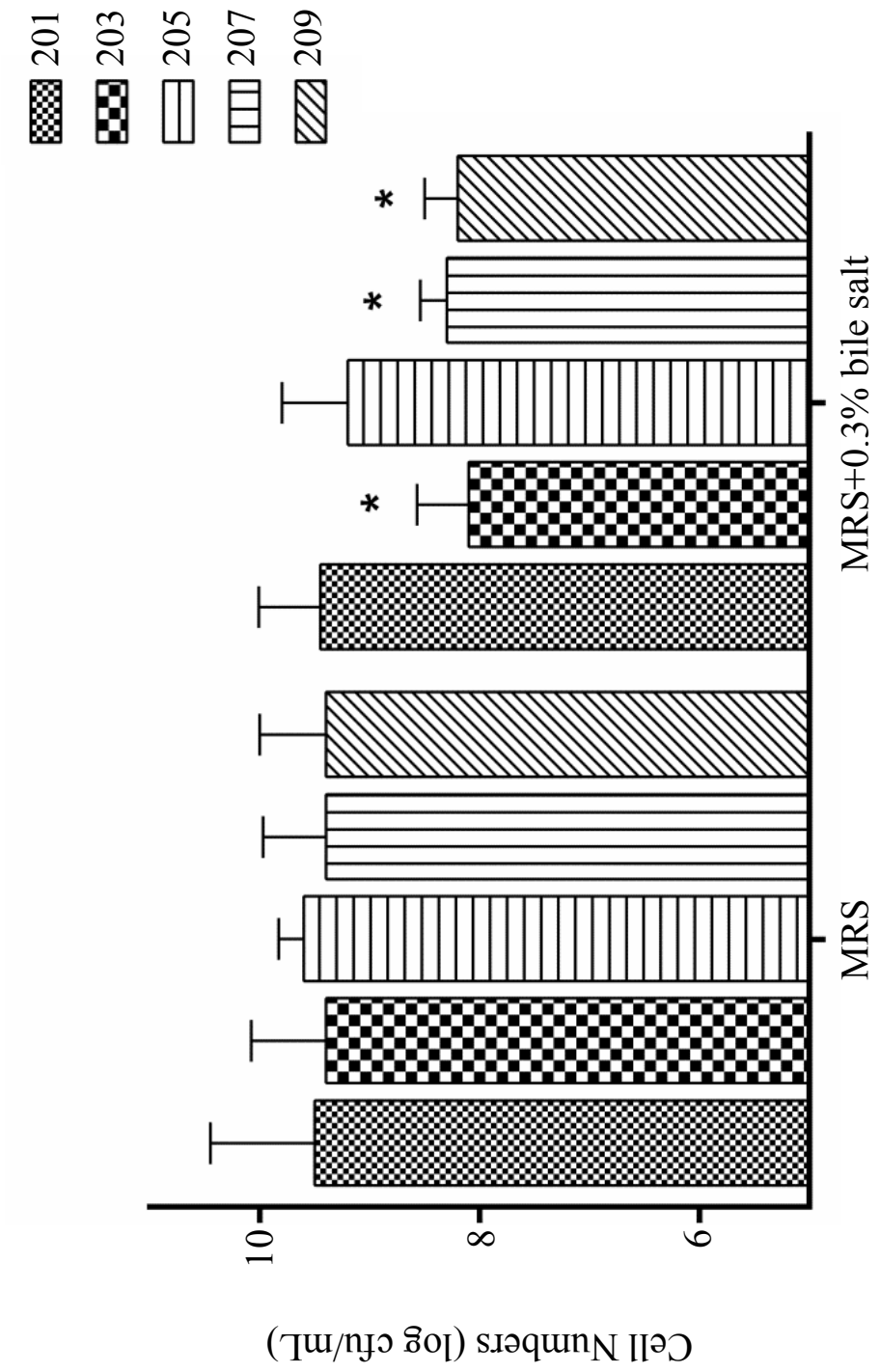

201
203
205
207
209
*
*
*
MRS
MRS+0.3% bile salt
10
8
6
Cell Numbers (log cfu/mL)

Fig. 2

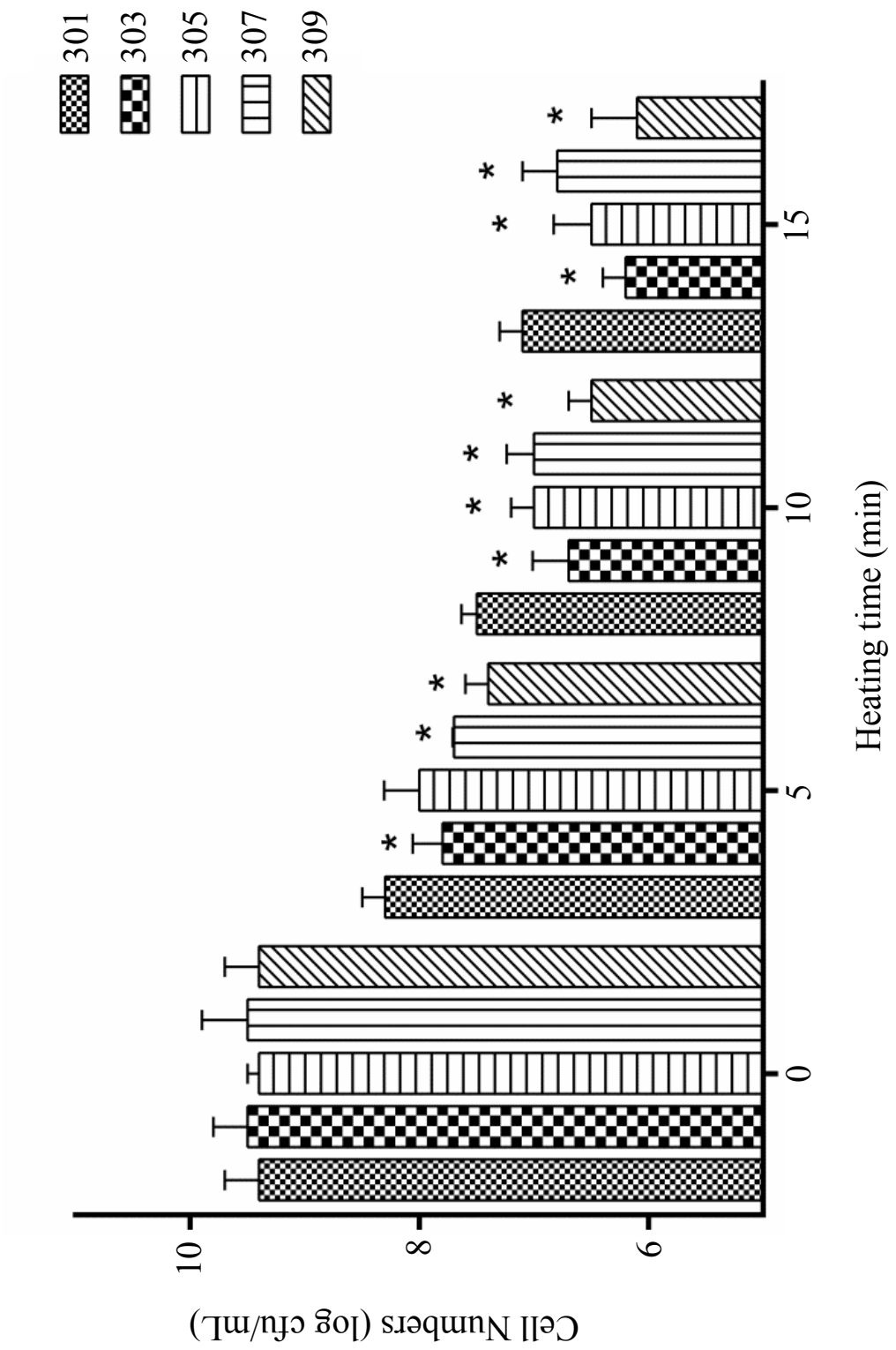

301
303
305
307
309
Cell Numbers (log cfu/mL)
10
8
6
0
5
10
15
Heating time (min)
*

Fig. 3

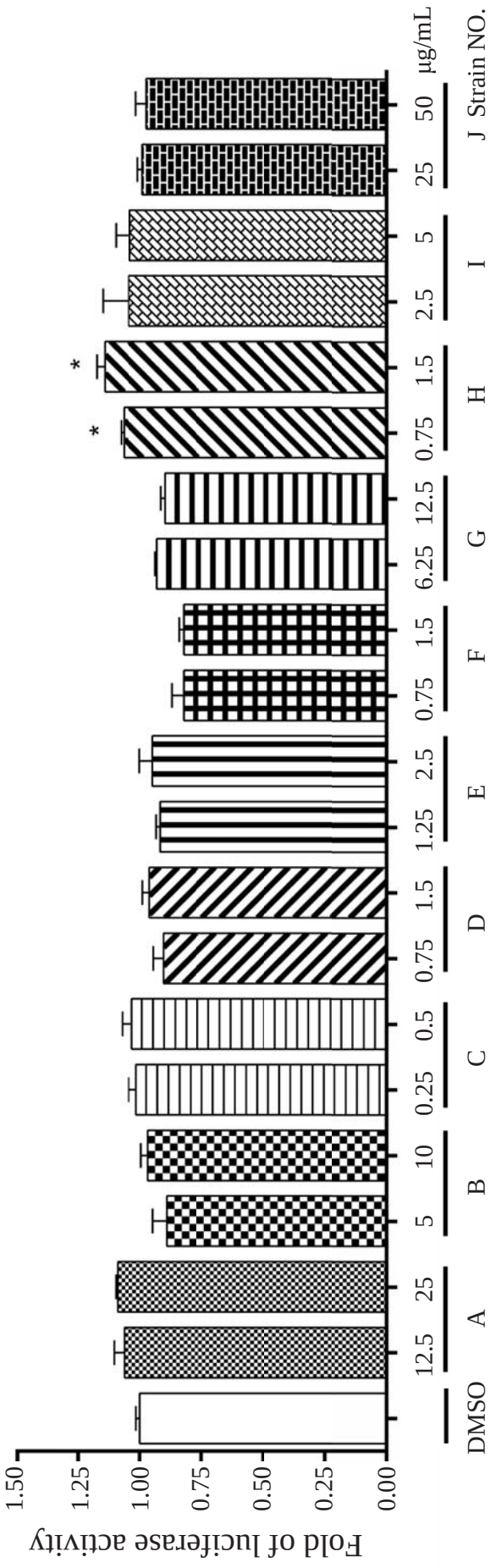

Fold of luciferase activity
1.50
1.25
1.00
0.75
0.50
0.25
0.00
DMSO
12.5
25
A
5
10
B
0.25
0.5
C
0.75
1.5
D
1.25
2.5
E
0.75
1.5
F
6.25
12.5
G
0.75
1.5
H
2.5
5
I
25
50
μg/mL
J Strain NO.
*
*

Fig. 4

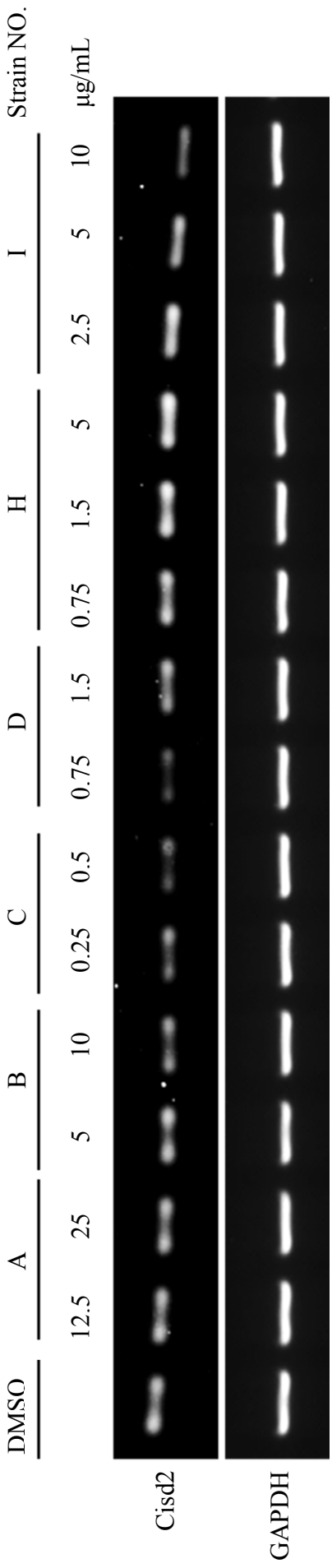

Strain NO.
μg/mL
DMSO
12.5
A
25
5
B
10
0.25
C
0.5
0.75
D
1.5
0.75
H
1.5
5
I
2.5
5
10
Cisd2
GAPDH

Fig. 5

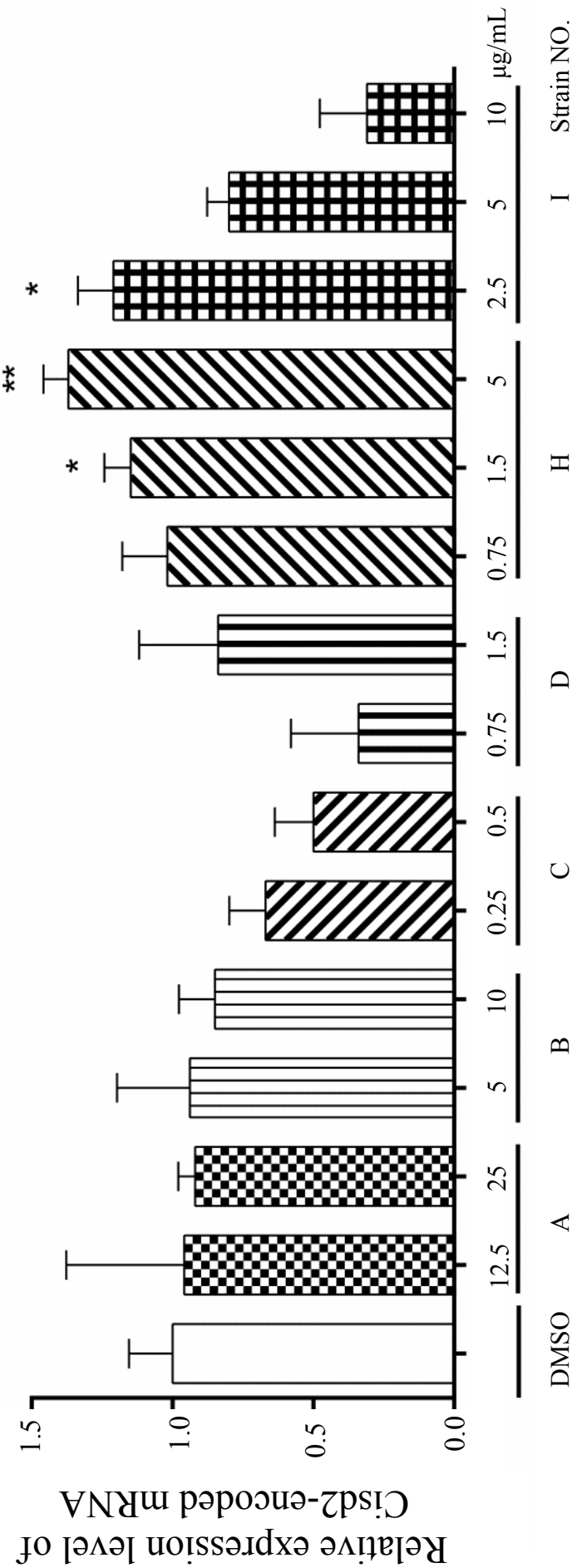

Relative expression level of Cisd2-encoded mRNA
1.5
1.0
0.5
0.0
DMSO
12.5
25
A
5
10
B
0.25
0.5
C
0.75
1.5
D
0.75
1.5
5
H
2.5
5
I
10 μg/mL
Strain NO.
*
**
*

Fig. 6

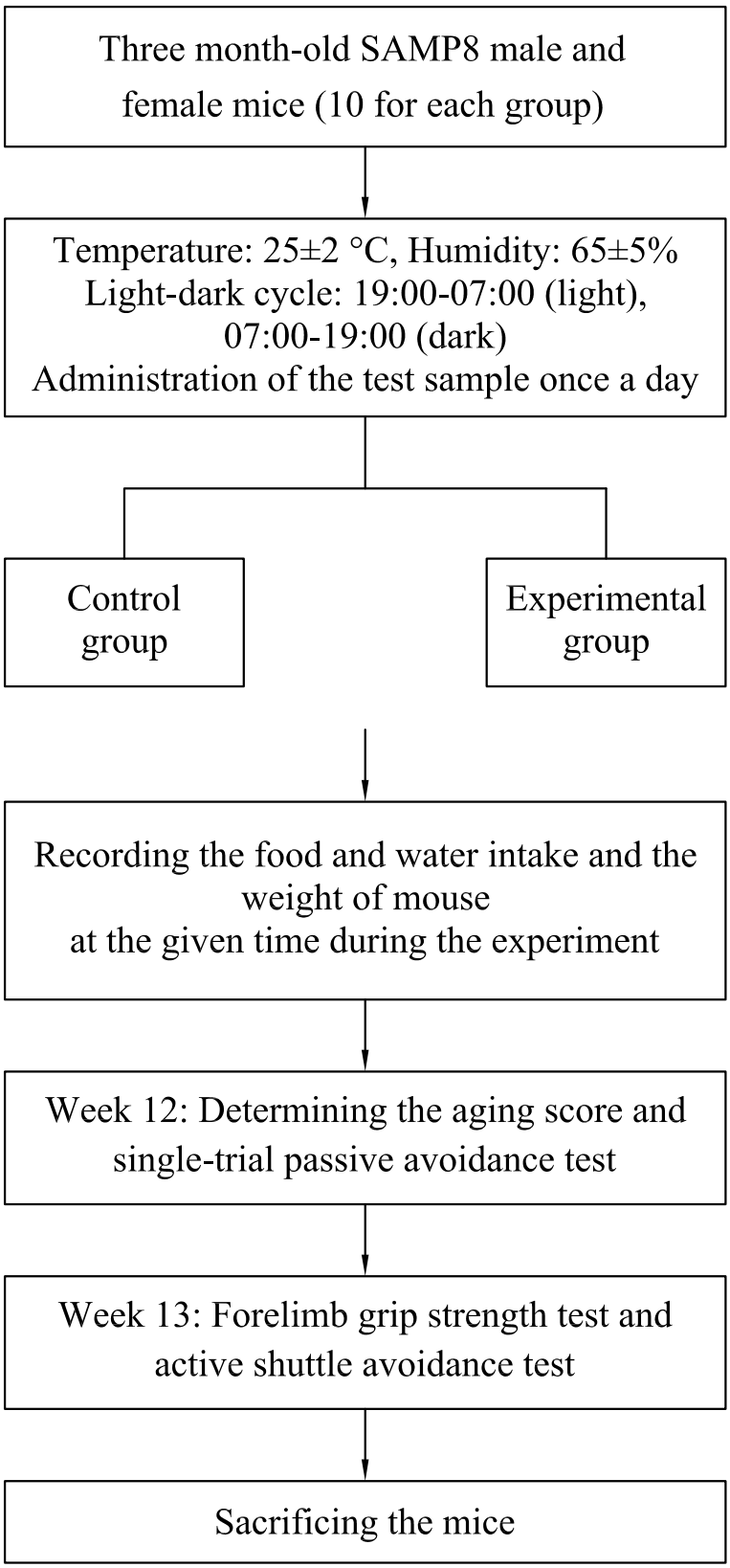

Three month-old SAMP8 male and female mice (10 for each group)
Temperature: 25±2 °C, Humidity: 65±5%
Light-dark cycle: 19:00-07:00 (light), 07:00-19:00 (dark)
Administration of the test sample once a day
Control group
Experimental group
Recording the food and water intake and the weight of mouse at the given time during the experiment
Week 12: Determining the aging score and single-trial passive avoidance test
Week 13: Forelimb grip strength test and active shuttle avoidance test
Sacrificing the mice

Fig. 7

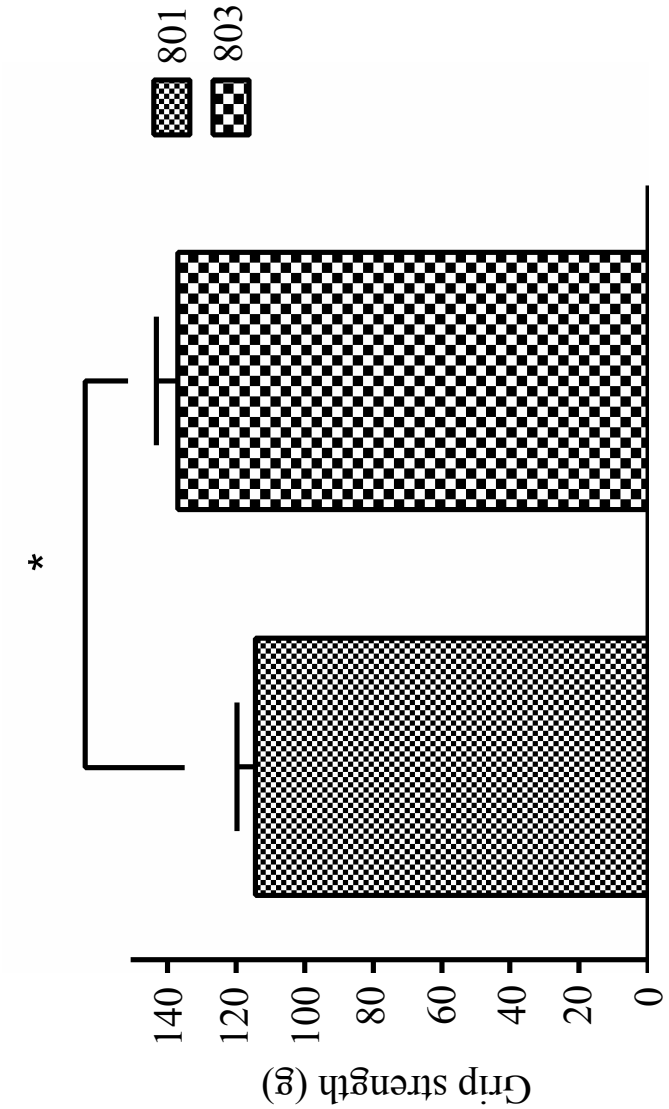


Fig. 8

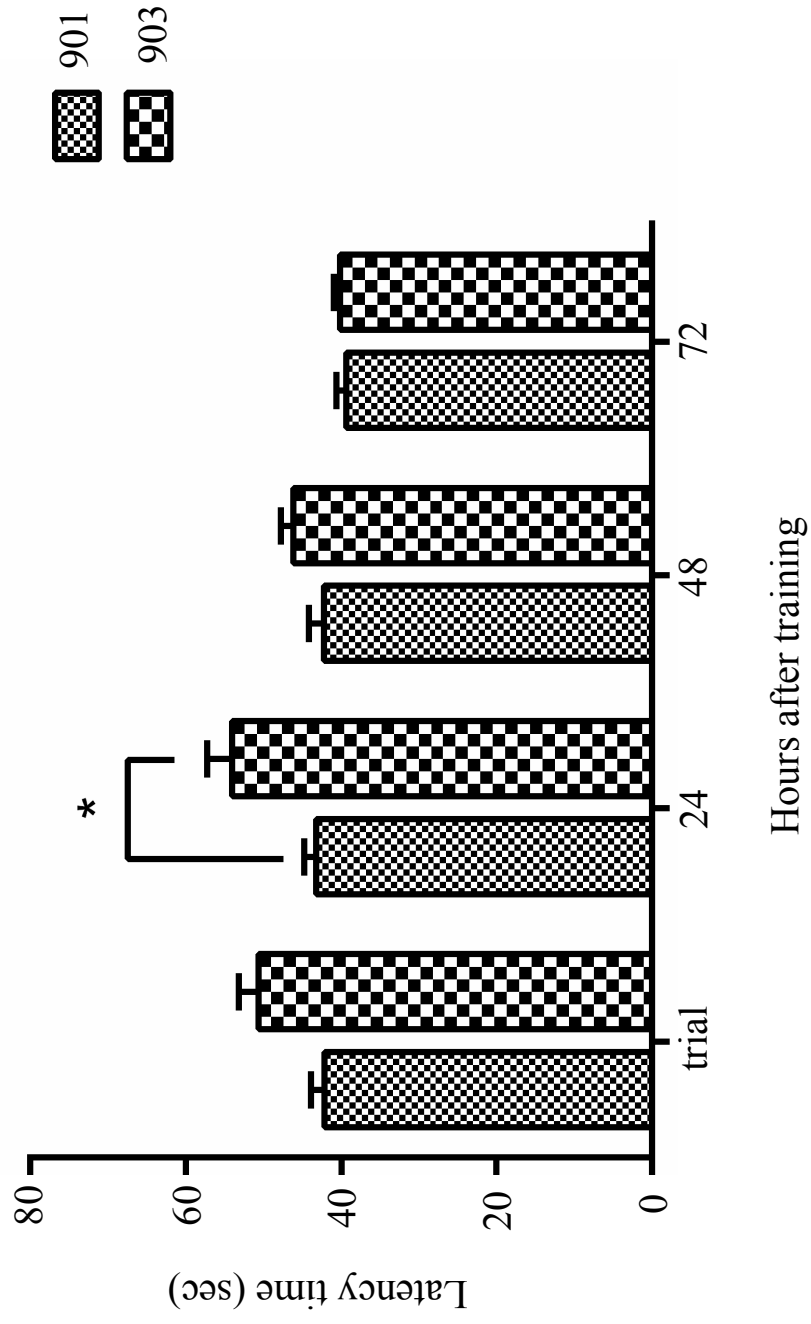

901
903
Latency time (sec)
0
20
40
60
80
*
trial
24
48
72
Hours after training

Fig. 9

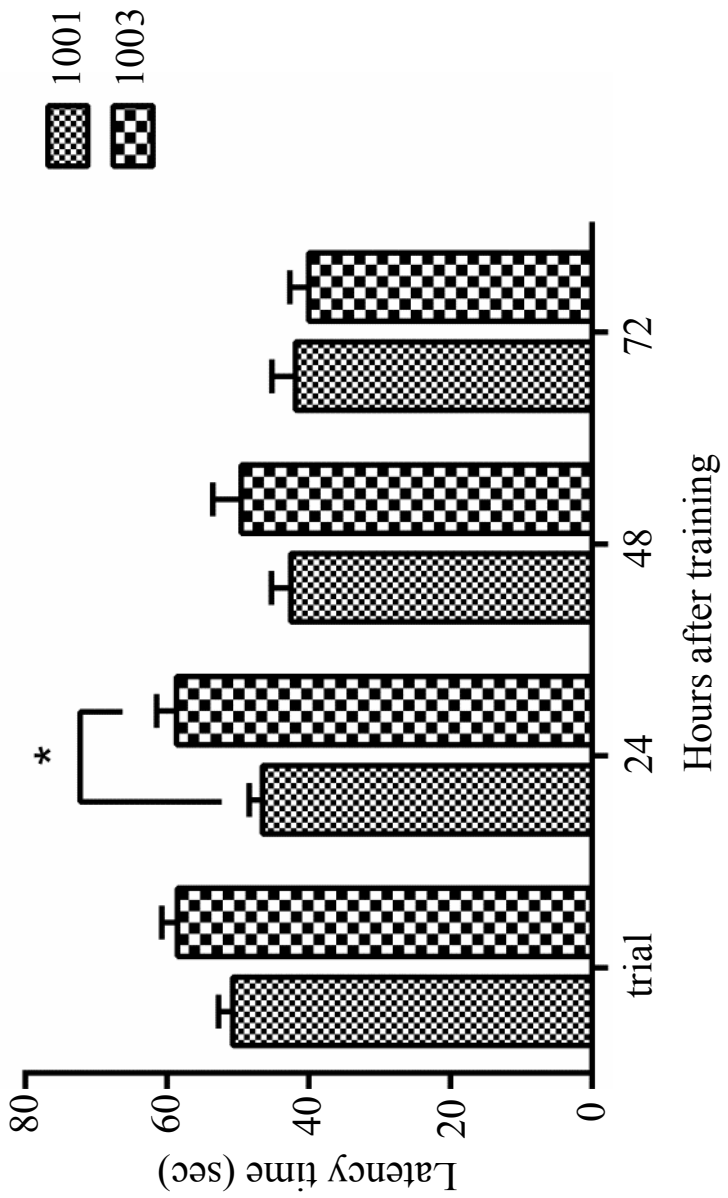

1001
1003
Latency time (sec)
0
20
40
60
80
*
trial
24
48
72
Hours after training

Fig. 10

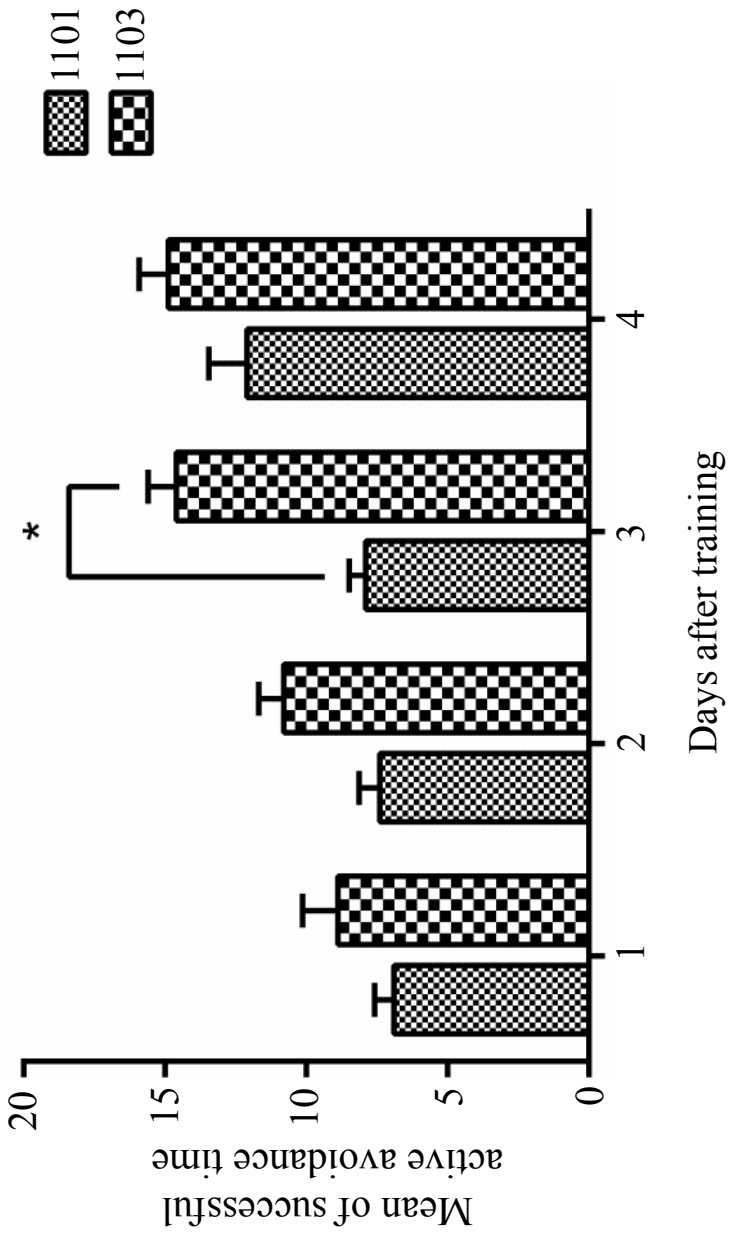

1101
1103
Mean of successful active avoidance time
20
15
10
5
0
*
1
2
3
4
Days after training

Fig. 11

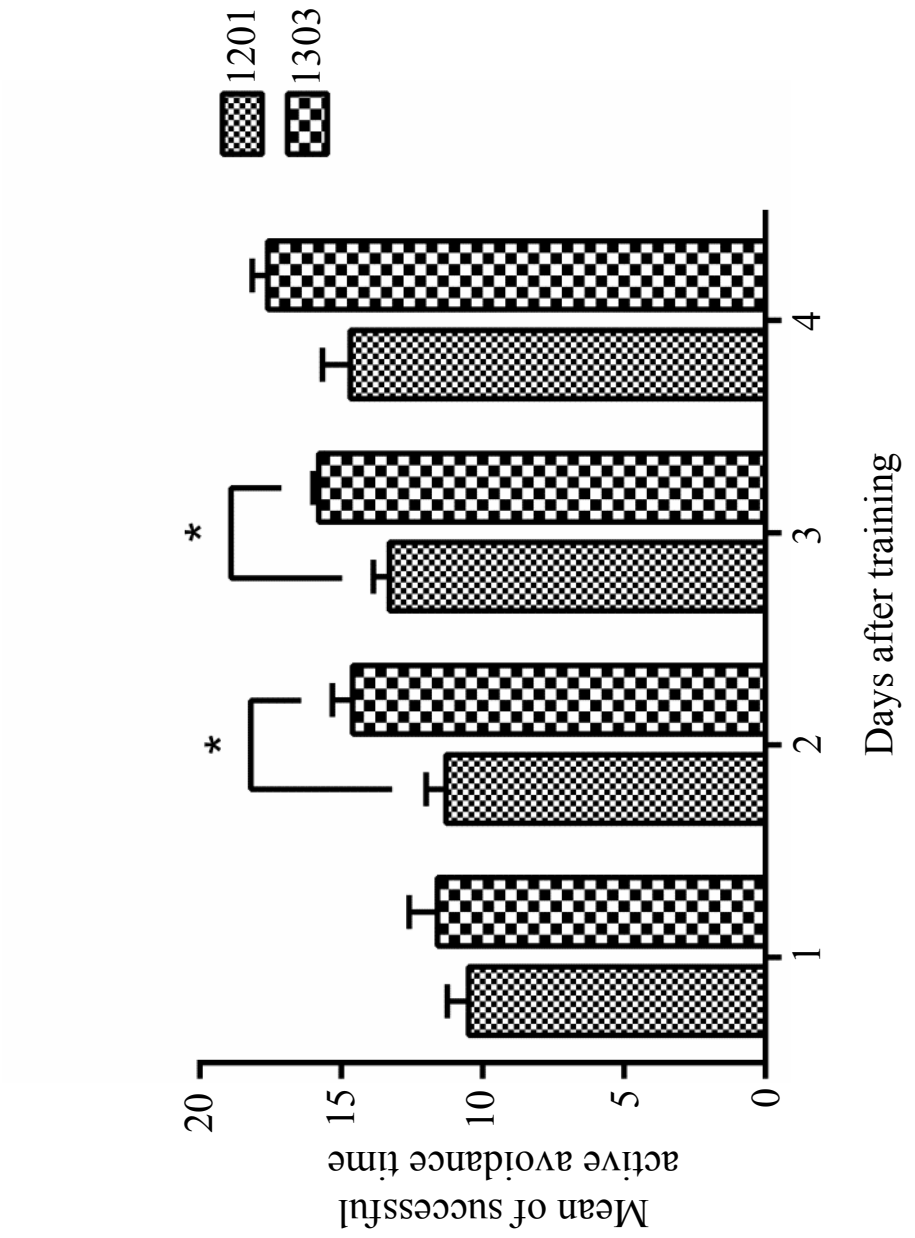

1201
1303
Mean of successful active avoidance time
20
15
10
5
0
1
2
3
4
Days after training
*
*

Fig. 12