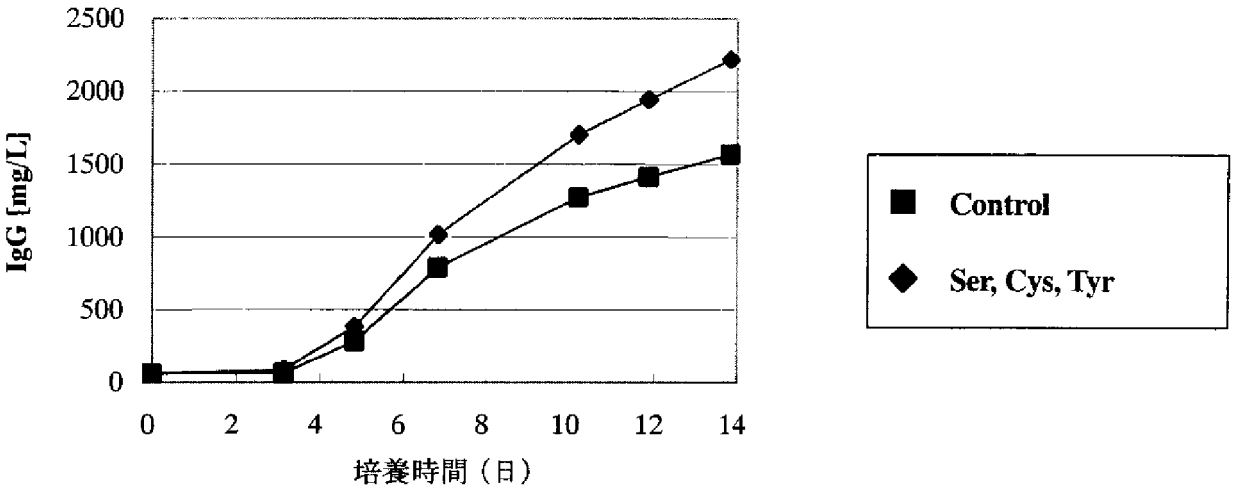
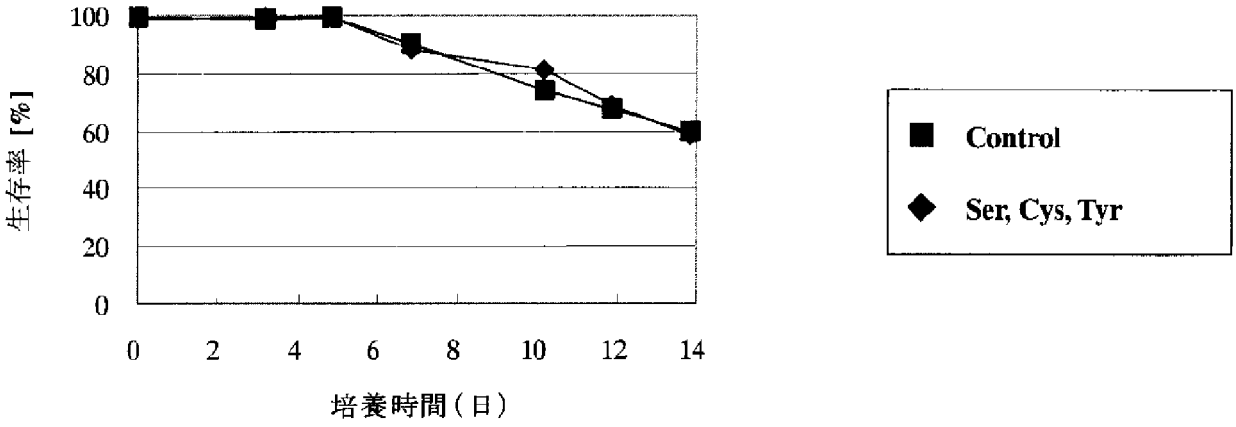
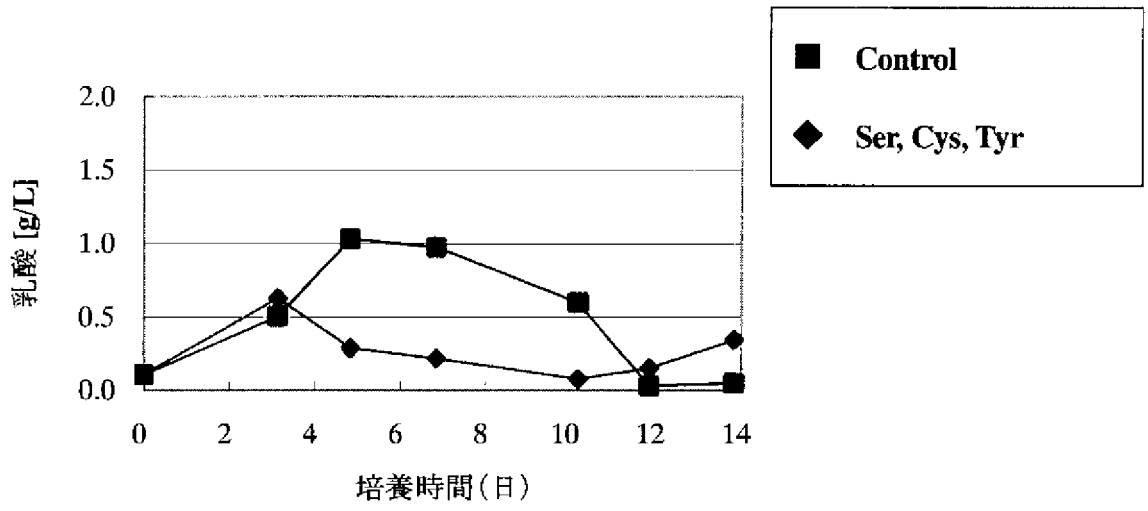
[図1]


2500
2000
1500
1000
500
0
IgG [mg/L]
0 2 4 6 8 10 12 14
培養時間（日）
Control
Ser, Cys, Tyr

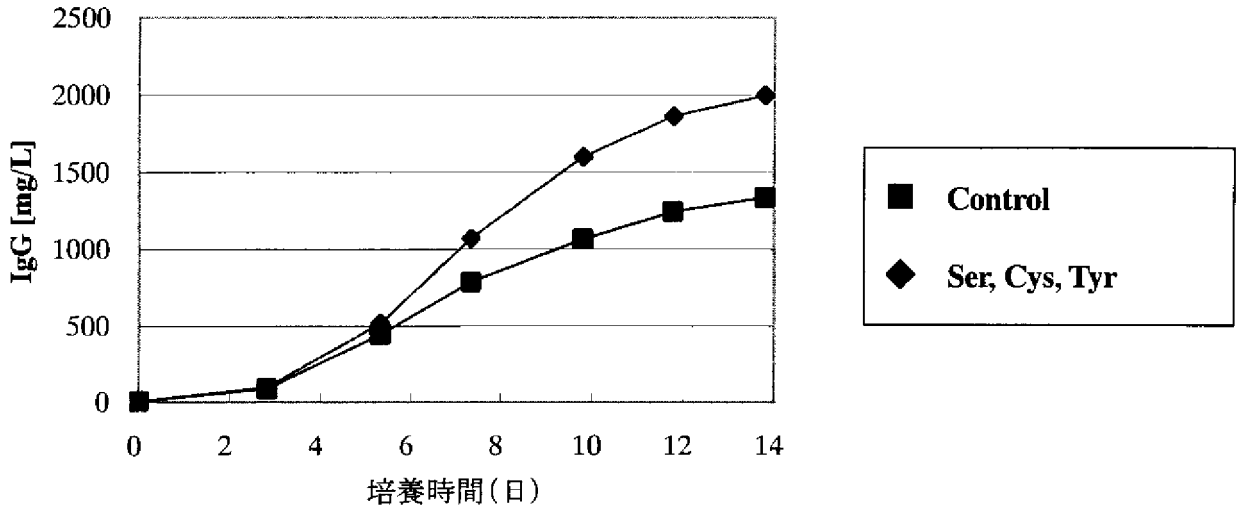
[図2]


100
80
60
40
20
0
生存率 [%]
0 2 4 6 8 10 12 14
培養時間（日）
Control
Ser, Cys, Tyr

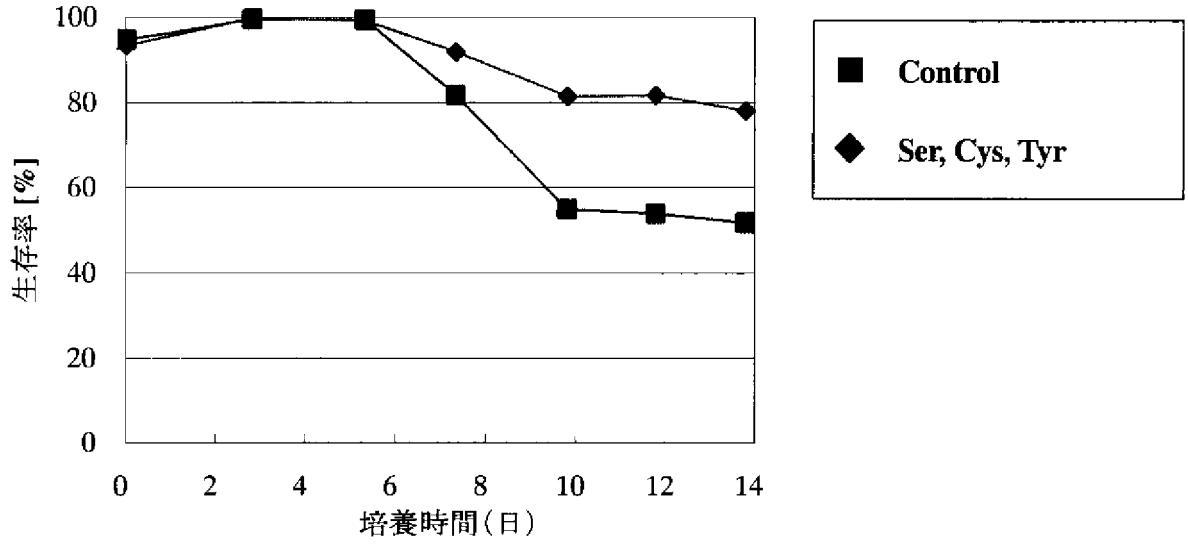
[図3]


2.0
1.5
1.0
0.5
0.0
乳酸 [g/L]
0 2 4 6 8 10 12 14
培養時間（日）
Control
Ser, Cys, Tyr

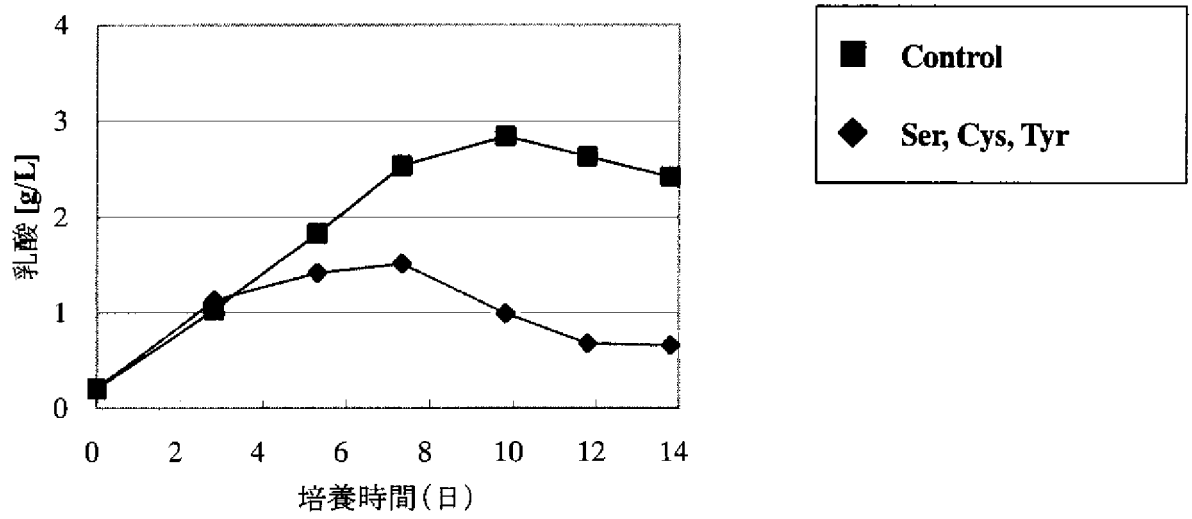
[図4]


2500
2000
1500
1000
500
0
IgG [mg/L]
0
2
4
6
8
10
12
14
培養時間(日)
Control
Ser, Cys, Tyr

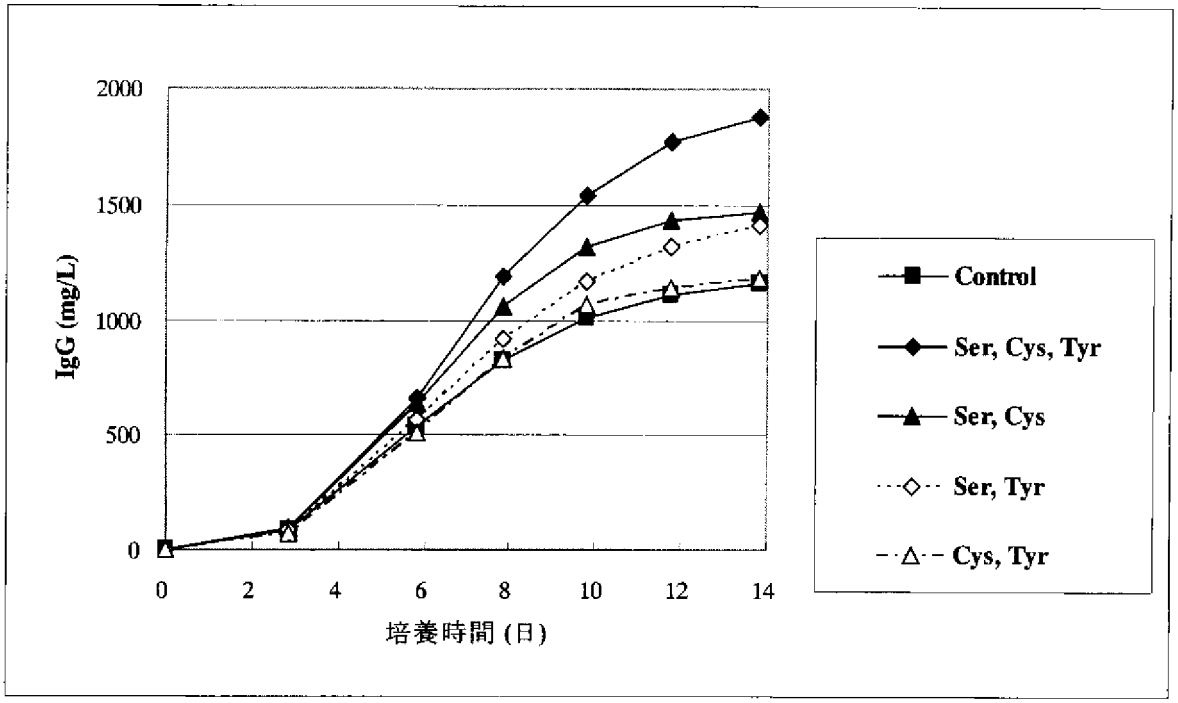
[図5]


100
80
60
40
20
0
生存率 [%]
0
2
4
6
8
10
12
14
培養時間(日)
Control
Ser, Cys, Tyr

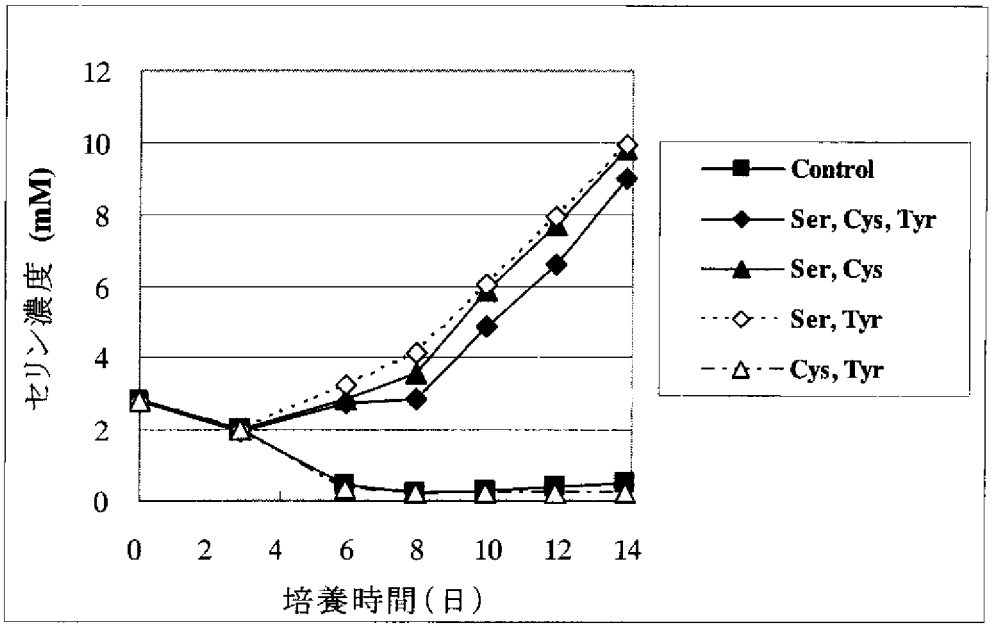
[図6]


4
3
2
1
0
乳酸 [g/L]
0
2
4
6
8
10
12
14
培養時間(日)
Control
Ser, Cys, Tyr

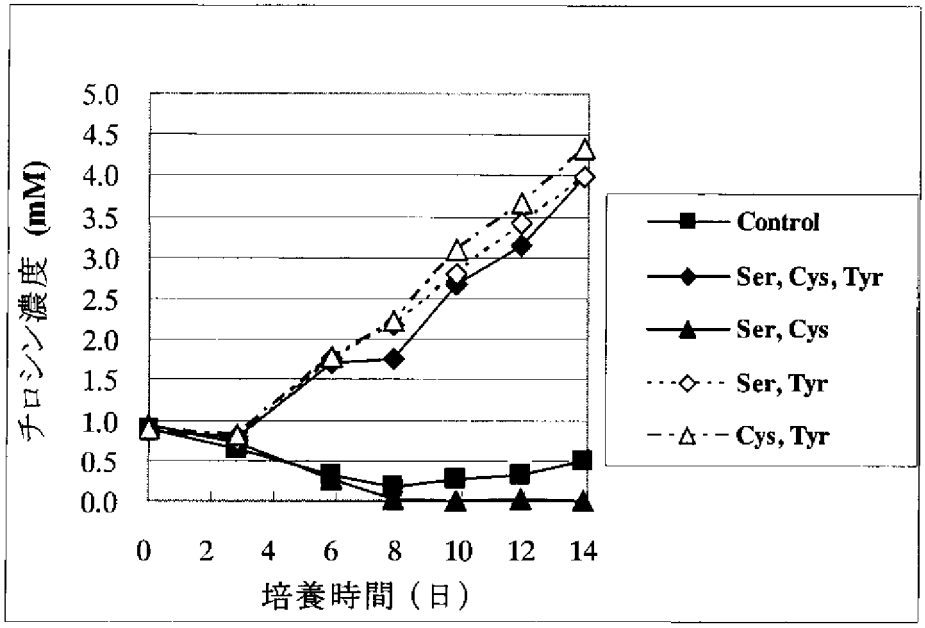
[図7]


2000
1500
1000
500
0
IgG (mg/L)
0
2
4
6
8
10
12
14
培養時間 (日)
Control
Ser, Cys, Tyr
Ser, Cys
Ser, Tyr
Cys, Tyr

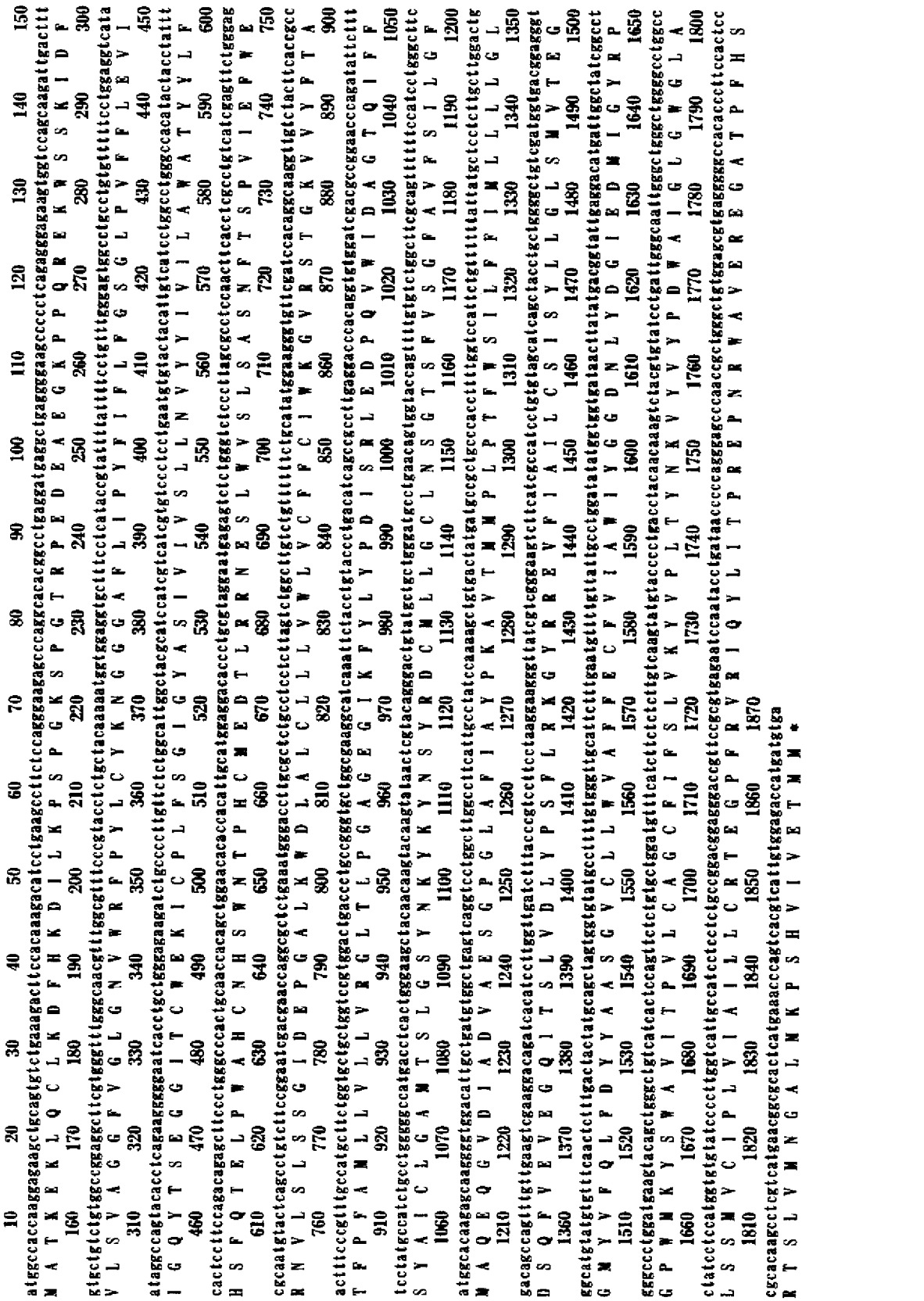
[図8]


12
10
8
6
4
2
0
セリン濃度 (mM)
0
2
4
6
8
10
12
14
培養時間(日)
Control
Ser, Cys, Tyr
Ser, Cys
Ser, Tyr
Cys, Tyr

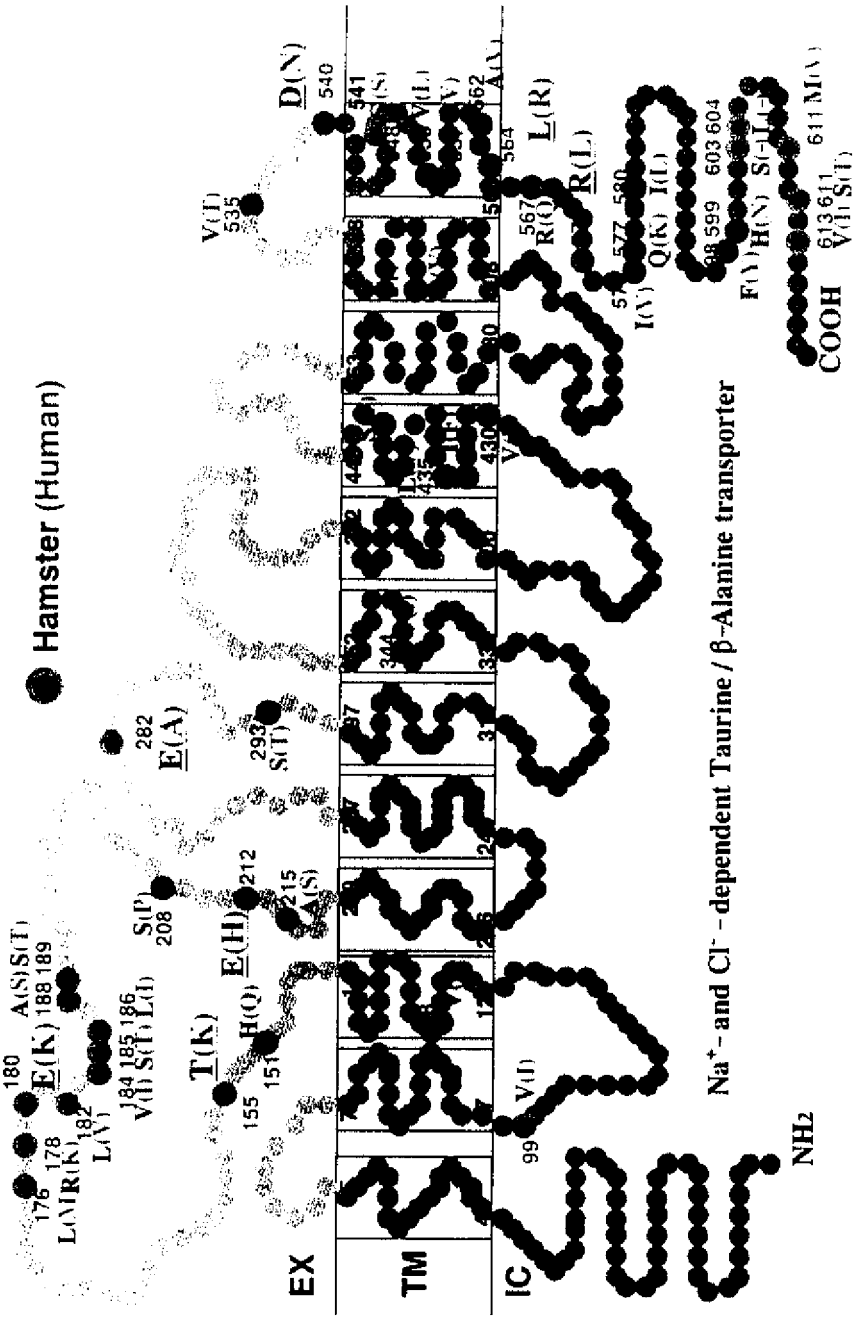
[図9]


チロシン濃度 (mM)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
2
4
6
8
10
12
14
培養時間（日）
Control
Ser, Cys, Tyr
Ser, Cys
Ser, Tyr
Cys, Tyr

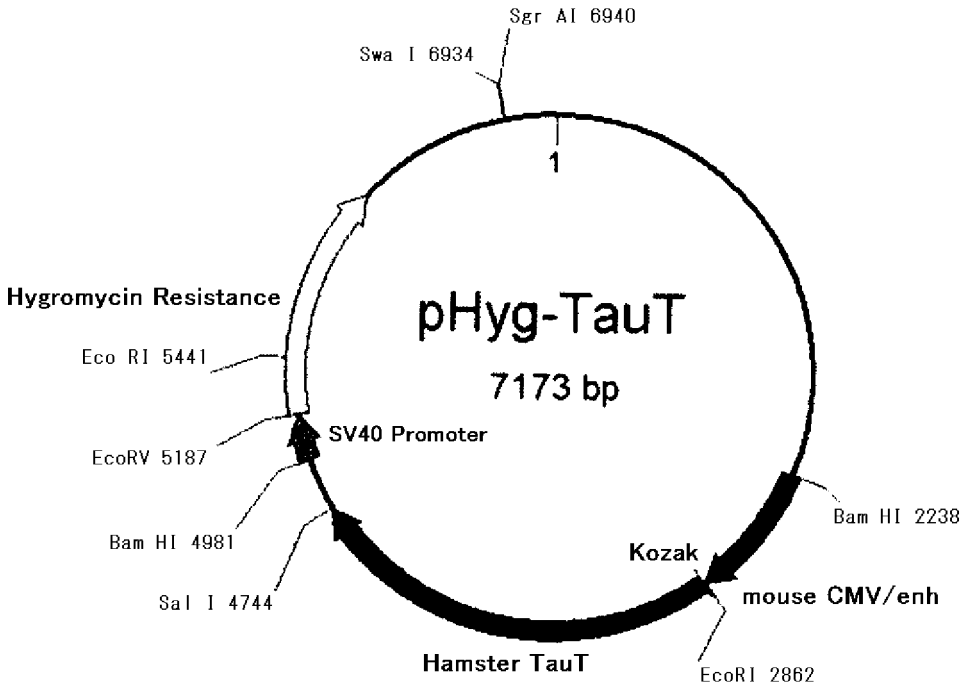
[図10]



[図11]


Hamster (Human)
Na+- and Cl- - dependent Taurine / β-Alanine transporter
NH2
COOH
EX
TM
IC

[図12]


Sgr AI 6940
Swa I 6934
1
Hygromycin Resistance
pHyg-TauT
7173 bp
Eco RI 5441
SV40 Promoter
EcoRV 5187
Bam HI 4981
Sal I 4744
Bam HI 2238
Kozak
mouse CMV/enh
Hamster TauT
EcoRI 2862