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(A)(51) 。 Int. Cl. ⁷
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(43)2002 - 0021811
2002 03 22(21) 10 - 2002 - 7001897
(22) 2002 02 09
2002 02 09
(86) PCT/US2000/21022
(86) 2000 08 02(87)
(87)WO 2001/13125
2001 02 22(81) : , , , , ,
EP : , , , , , , , , , , , , , , ,
, , , , , , , , , , , , , , ,
, ,

(30) 09/372,954 1999 08 12 (US)

(71) . .
- 6800 . . 186 76

(72) 256 35

107 23

22613 4825

(74)

:

(54)

(DIC)

가

1999 2 4
Fischer

09/244,340

가

5,646,046

(blood clot)

가

in vivo

(wire loop)

가

in vitro

()

가

in vitro

(1)

, (2)

, (3)

, (4)

, (5)

(

-

)

가

C,

S, /

가

, PT

APTT가

가

P

T APTT

PT

가

APTT

APTT

PT

.

가 ,

가 ,
/ , /
 , /
 .

21 5 C - 300kD 가 , C - 300kD
 , 300kD , C - 300kD / C - 300kD
 , C - 300kD .

가 , / ,
 , 가 , /
 .

() 가)
()

(DIC -) (DIC)
가 가 가 가 .

(DIC)

DIC

DIC DIC 가
가 (PT), (APTT) DIC 가
/D - DIC 가
 ,

APTT (TW) S DIC " " APTT - TW

(1a b). 가, APTT 가

PT APTT 2 가

0.015M - 9 (part) 1 ,

MDA(Multichanne

I Discrete Analyzer)180 (Organon Teknika Corporation, Durham, NC, USA) . MDA Simpla

stin LS PT(11.2 - 15) MDA Platelin LS 0.025M (Organon Teknika Corporaton,

USA) APTT(23 - 35) 가 APTT TW

580nm , 25

100% 10000

1a , 10000 1b

가 . 25

APTT

DIC . (a) TW ,

(b) DIC , (c) PT APTT

1.5 - 3.8g/l) DIC . (TT)(10.5 - 15.5), (Fgn)(

< 0.5) Nyocard D - (Nycomed Pharma AS, Oslo, Norway) D - 가(

가, DIC EDTA (Plt)(150 - 400 10⁹/l)

TW

2 (PT, APTT, Fgn, TT Plt)

DIC D -

(> 0.5mg/l) DIC

가 DIC APTT - TW , ,

, DIC - - (two - by

- two) . 95% (CI)

1,470 747 . 54 174

(11.9%) 가 . 54 22

가 . 41 DIC가 , 30

1

1

DIC 41 40 TW 가 . PT, 44.0 APTT (TW DI

C) 가 (PET) . PET 21.0 가 D - 1.5mg/l

DIC TW . DIC TW 14 , 가
 DIC 가 2 D - 14 4 PT 가
 가 DIC 8
 " (SIRS) 97.6%
 TW 98% DIC
 2
 74% , 가
 가 (2 2). , D - 가
 가 12 DIC
 TW 가 DIC
 3
 22 3 가 3 E.coli
 TW DIC . PT, APTT, Plt D -
 DIC 25 DIC
 TW D - Plt 24 48
 TW TW 25 가 DIC
 . TW 3 가 가 ,
 . DIC가 , TW DIC 가 가
 . 4 -
 DIC 가 ,
 가 가
 DIC가 , 가
 TW가 (, DIC)
 (i) , (ii) - APTT , (iii)
 (iv)
 , DIC
 TW가 97.6% 98% DIC
 (, PT, APTT, TT, Fgn, Plt, D -)
 . MDA - 180 TW 가 - EL
 ISA . 가 TW

(a) TW DIC 가 ,
 가 DIC , (b) TW DIC .

TW가 DIC , (
 -) . TW
 DIC 90% DIC (2) (4) D
 DIC DIC . TW(95%)
 - .
 TW DIC , .
 TW DIC .

PET DIC PET TW 6 가 가 DIC 가 PET DIC
 . PET DIC TW
 가 . PET DIC
 . DIC

1a 1b APTT , 1a , 1b
 .

2 54 25 .
 ;

3 DIC가 () ()
 ;

4 DIC가 () () ;

5 25 (TR25), APTT , _1() DIC
 ROC ;

6 7 TR25 _1 DIC, / -DIC ;

8 10 _1 TR25 ;

9 11 8 10 ;

12 APTT ;

13 14 PT ;

15 , (X) APTT () , (Y)

16 CRP ELISA ;

17 ;

18 가 ;

19 ;

20 ;

21a 21 SDS (page) SDS ;

22 DIC ;

23 (가) Q - 2가 가 ;

24 ELISA CRP ;

25 가 ;

26 ;

27 (calibration) ;

28 18 56 ITU CRP ;

29 CRP 18 (10000 - TR18)가 .

25 DIC ,

가 . , 25

25 ()

, 25 가 / ,

.

,

, (가) . 11 ,

DIC , 가 , 9 ,
DIC
.

가 . 91 APTT 1 51 DIC
. 110 APTT 2 81
. 37 APTT 22 , - DIC . 5
(1)25 (TR25), (2) APTT , (3) 1()
APTT DIC ROC
1 가 , TR25 . 18 가 가 가 ,
APTТ 25 . 가 " "
4 .

[4]

과립 미터	한계
TR25	< 9700
응고시간	> 35
슬로프 1	< -0.0003

1 DIC, 가 / - DIC . 6 7 TR25
5 6 6 7

[5]

Bins	DIC	정상	비정상/비-DIC
-0.006	3	0	0
-0.005	2	0	0
-0.004	1	0	0
-0.003	10	0	0
-0.002	24	0	0
-0.001	33	0	0
-0.0005	12	0	0
-0.0002	5	5	2
-0.0001	1	37	13
More	0	68	22

[6]

Bin	DIC	정상	비정상/비-DIC
7000	34	1	0
8000	18	2	0
9000	26	6	1
9500	8	3	0
9600	3	2	1
9700	1	0	0
9800	1	3	0
9900	0	21	4
10000	0	62	30
More	0	10	1

8 10 1 TR 25 ; 9 11 1 TR 25
 . 9 11 8 10 .

flag) . DIC , (,
) DIC 가 /
 . - 0.0003 - 0.0005 가
 가 .

APTT
 , APTT DIC
 APTT PT APTT (ellagic acid)
 , DIC

APTT , PT PT (), Recombi
 plastTM (Ortho), ThromborelTM (Dade - Behring) InnovinTM (Dade - Behring) . Reco
 mbiplast Thromborel . Innovin
 PT 10 , Recombiplast Thromborel
 Innovin . Thromborel 가
 Thromborel .

PlatelinTM APTT RecombiplastTM PT
 . 4 가 . 가
 (APTT TL 18 PT TL10), APTT PT
 . 13(Recombiplast) 14(Thromborel S) PT
 12(Platelin) APTT APTT
 PT . ,

가 . DIC

가 . , 가 , , , , 가 . (APTT, PT,)

가 . (hirudin), PPACK, , , I2581

가 . (,)

15 (X) APTT ()
(Y) (가
(Y) / -
가 ,
(가 (CRP(CRP) ELISA

(Hiprep Sephacryl s - 300 - 10 1500kDa) 320ml
(d=26nm, l=600mm), 1.35ml/ 17

(가) (PPACK)

18

. 0.05 19 100% (18)).

가 4 15 10,500 x g 50mM , 8 가 5% : PPACK(10 μ M)
PPACK , 35 - 70% (NH₄)₂ SO₄ HBS/1mM /10 μ M
ed), 0.02M NaCl 50ml/ 2ml 20 35 - 70%
(Q -)

21a 21b , SDS PAGE
 (): 5 - 15% /Neville . (10μg) . 1
 94, 67, 45, 30, 20 14kDa . 2 35% (NH₄)₂SO₄ , 3 7
 0% (NH₄)₂SO₄ . 4 Q - . 21a 5, 6, 7 8
 (20) 1, 2a, 2b, 3 . 9 1 10 . NH₂ -
 8 9 3, 22kD C - (CRP) 9 10kD
 A(SAA) . 5 1 23 300kD
 , 가 가 (CRP) .

CRP
DIC
1(22): (SDS - PAGE/CRP
0.2μl). (): NHP; Pt 5; 3; 1; 2; 4; 8. 2 :
(): NHP; Pt 9; 10; 11; 7; 6; 12. 3 : (DIC CRP) -
(; ng CRP): 3.91; 7.81; 15.625; 31.25; 62.5; 125; 250. PBS, pH 7.4
2%(w/v) BSA - CRP - IgG(Sigma, Cat# C3527, PBS/0.01%

20 1:5000) HRP (PBS/0.01% 20 1
:25000) .

23 Q - 2가 가
 . , 1 3 CRP, 300kD
 (3 +).
24 ELISA CRP, $\mu\text{g/ml}$. A405nm PPACK
24 가 가
CRP 가 , .

, (,)
 . 가 . , 가
 . 25 가 , 가
 . 가 (,) ,
 () 가 (가) ,
 (DIC) .

T , 26 , APT
 () ()
 가 . 27 가 () , _1
 , _1 가 ,
 / 가 가 .

28 , 56 ITU CRP 18
18 . 29 CRP 18 가
(10000 - TR18). 가 가
CRP . , 가 CRP
CRP .

, CRP
 / , 300kD CRP 가 .
 ,
 CRP .

, , / ELISA (

, ELISA) , CRP , CRP 가 , CRP
 . , CRP 2 300kD
 . , 2 300kD , 300kD CRP
 2 () SAA 가 SAA CRP 3
 00kD 가 , Antibo

dies, A Laboratory Manual, Harlow, Ed and Lane, David, Cold Spring Harbor Laboratory, 1988

가 ,
 .

(57)

1.

a) 가 ;

b)

2.

3.

2, 2가 .

4.

3, 2가 .

5.

2, , , ,

6.

1. , 가 가

7.

6, , PPACK, I2581,

8.

1 , .

9.

8 , 가 .

10.

1 , , 가 .

11.

1 , 가 20kD .

12.

11 , , EDTA 5 가 .

13.

1 , 가 .

14.

1 , _0 .

15.

14 , _0 .

16.

1 , .

17.

10 , .

18.

a) ;

b) ;

c) 가 ;

d) 가 ;

e) 가 가 .

19.

18 , 가 .

20.

18 , .

21.

18 , .

22.

21 , .

23.

22 , , , , .

24.

18 , 가 .

25.

24 , , , PPACK, I2581 .

26.

18 , .

27.

18 , , .

28.

18 , DIC .

29.

a) ;

b) A C - , A C - ,
가 .

30.

29 , .

31.

30 , .

32.

30 , , , , 2가 ,
, , , PPACK, I2581 .

33.

a) 가 ;

b) 가 ;

c) ;

d) ,
2 가 ;

e) ;

f) 가 .

34.

33 , PT APTT .

35.

34 , 가 .

36.

35 , 가 , , , .

37.

35 , .

38.

37 , , , PPACK, I2581 .

39.

33 , 2
1 .

40.

a) 가 ;

b) ;

c) ;

d) a) c) , 가
가 .

41.

40 ,
.

42.

40 , 2가 .

43.

42 , , , , .

44.

42 , .

45.

44 , , , PPACK, I2581 .

46.

40 , 가 .

47.

40 , , , .

48.

a) 가 ;

b) ;

c) ;

d) 가 가 ;

e) .

49.

48 , / .

50.

48 , .

51.

50 , , , , / , - 1 .

52.

48 , 가 DIC DIC .

53.

48 , a) d) , 가 .

54.

53 ,
.

55.

54 , .

56.

55 , .

57.

48 , 2가
.

58.

57 , , , , / .

59.

57 , .

60.

59 , , I2581, PPACK, /
.

61.

a) 가 ;

b) ;

c) 가 ;

d) a) c) / ;

e) c) , / ;

f) e) .

62.

61 , a) c) .

63.

61 , DIC DIC

64.

61 , .

65.

64 , .

66.

65 , 가 , , ,

67.

61 , /

68.

61 , /

69.

68 , .

70.

a) C - 21 5 300kD ;

b) 가 가 C -
300kD ;

c) C - 300kD / ;

d) C - 300kD /

71.

70 , C - 300kD 2가
가 .

72.

71 , CRP 300kD A

73.

70 , DIC DIC

74.

71 ,

75.

71 , C - , , C -

76.

a)

가 ;

b)

;

c)

/

;

d)

;

e)

a)

c)

,

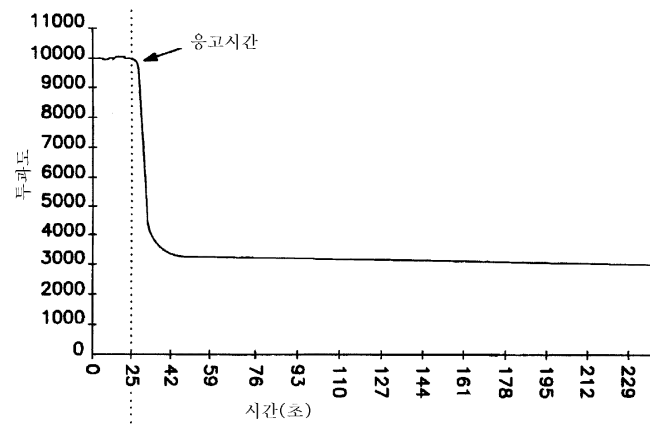
가

가

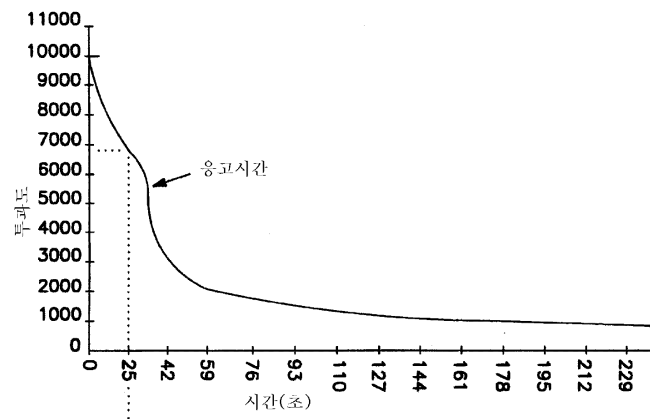
,

/

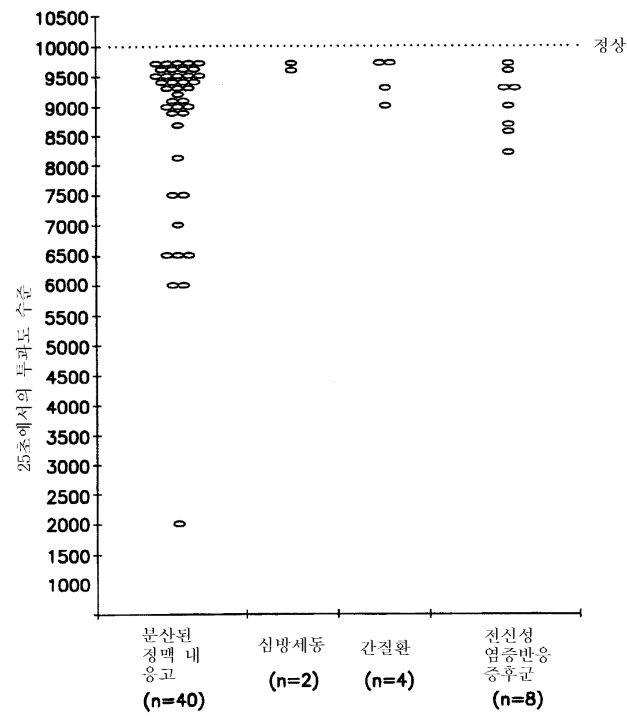
1a



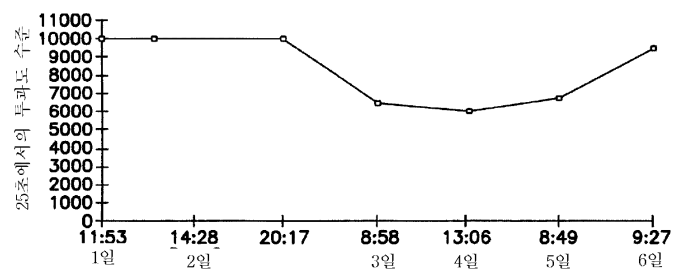
1b



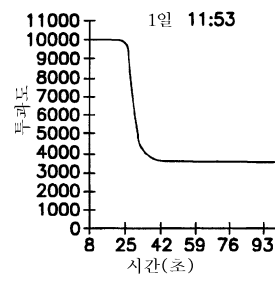
2



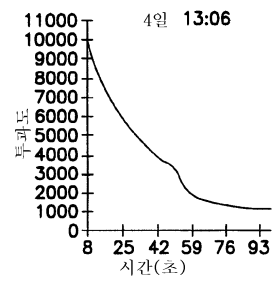
3a



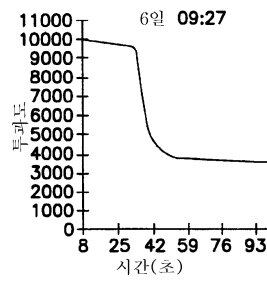
3b



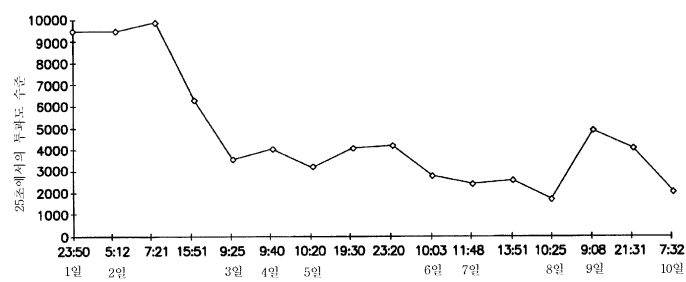
3c



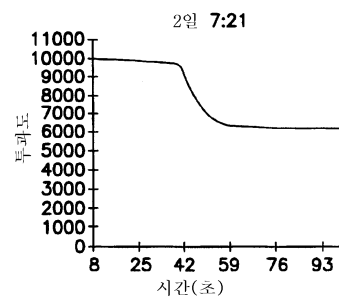
3d



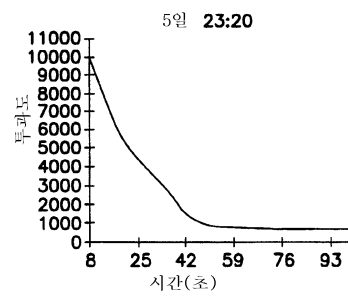
4a



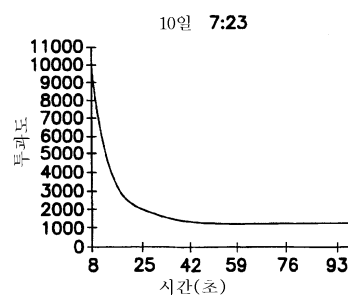
4b



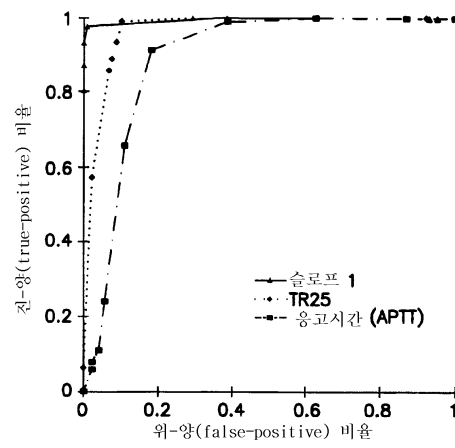
4c



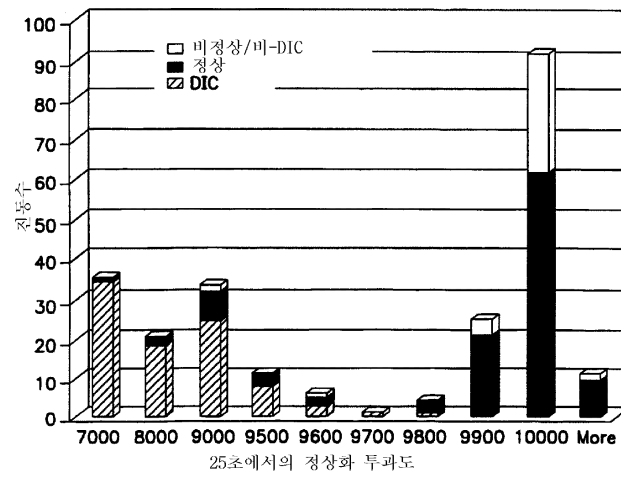
4d



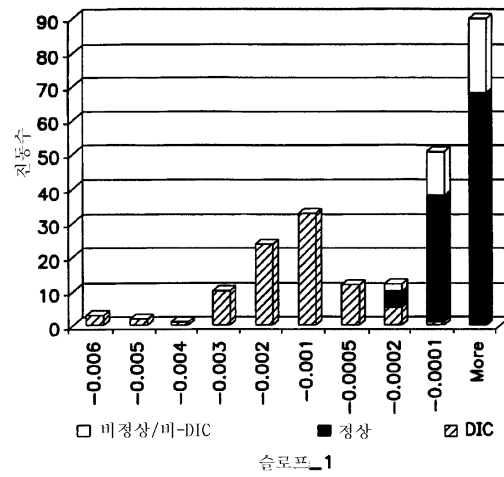
5



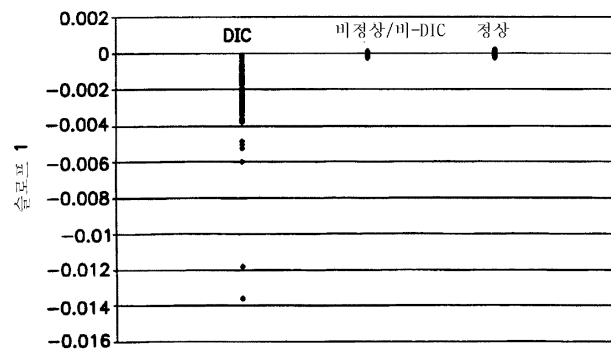
6



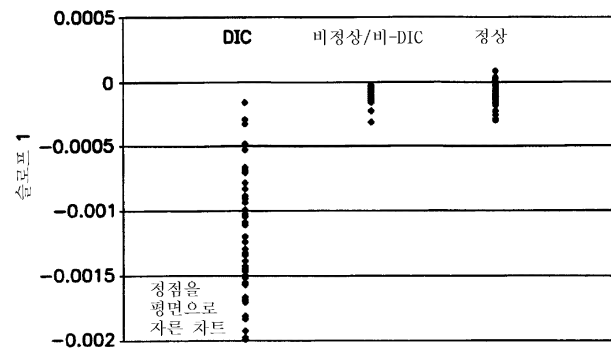
7



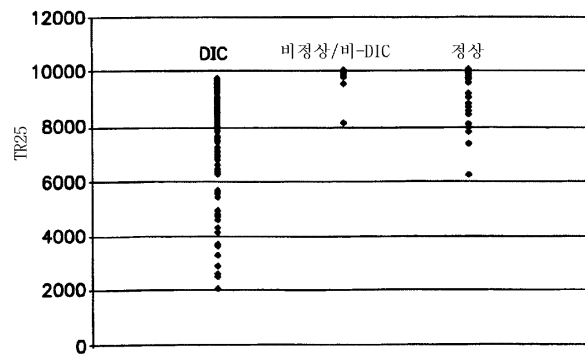
8



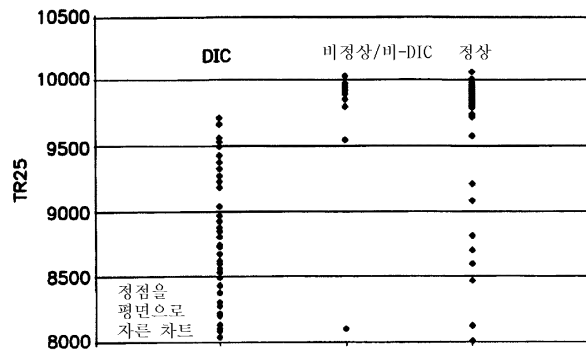
9



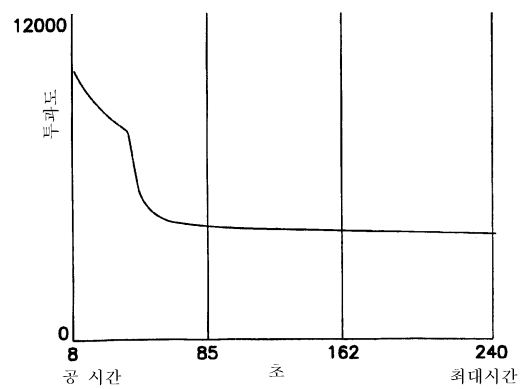
10



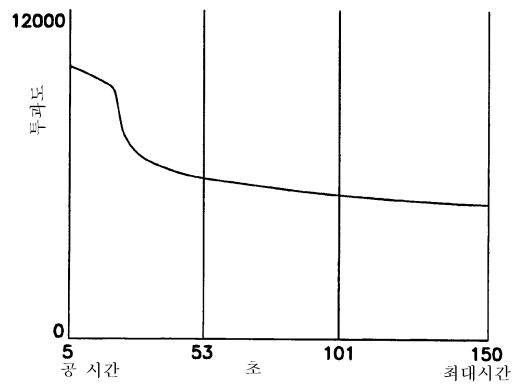
11



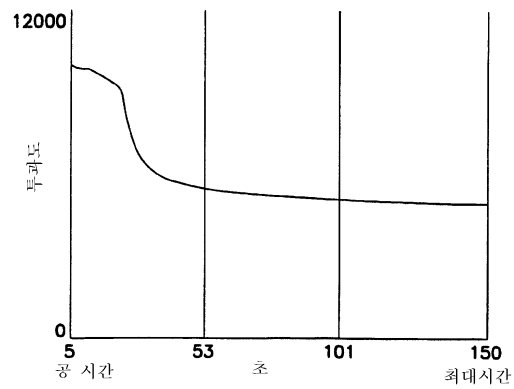
12



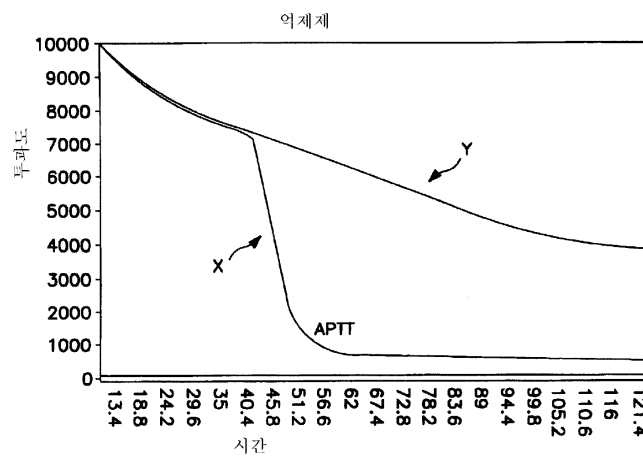
13



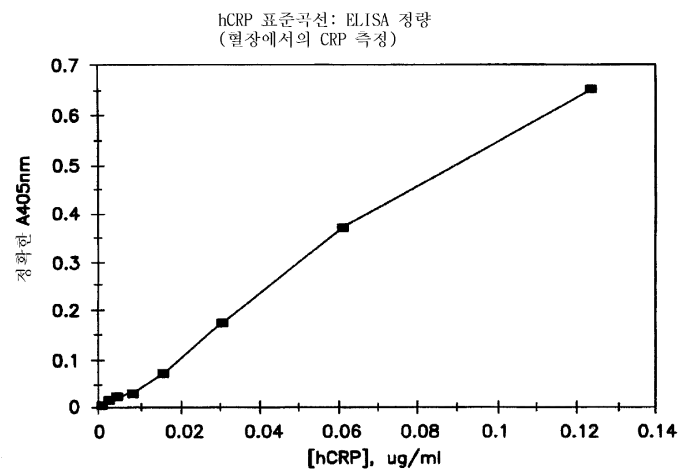
14



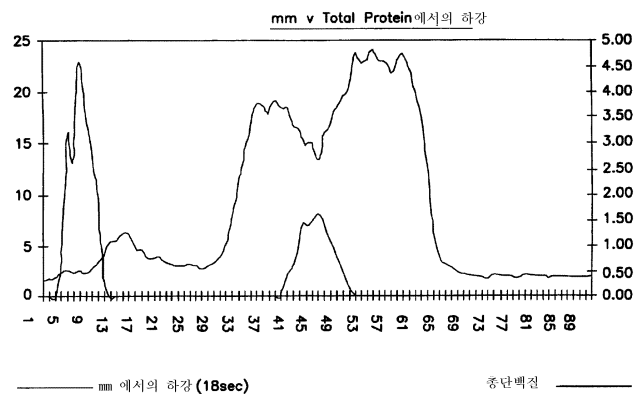
15



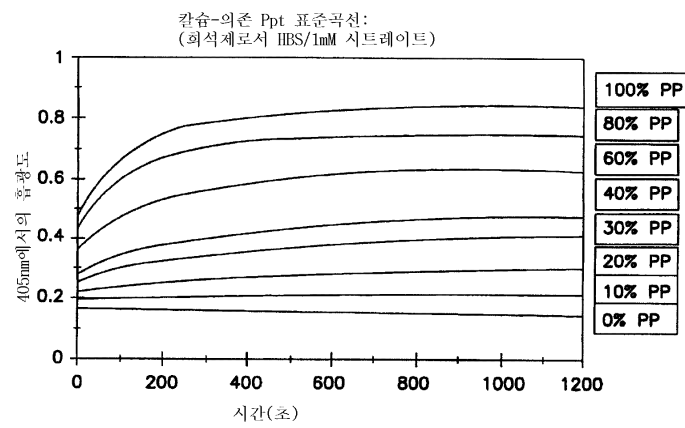
16



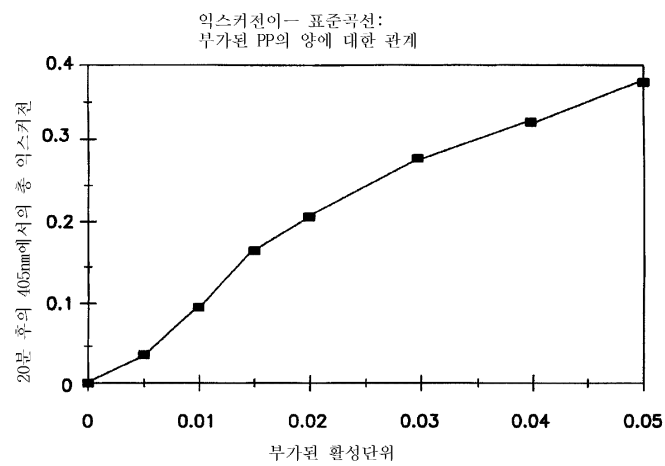
17



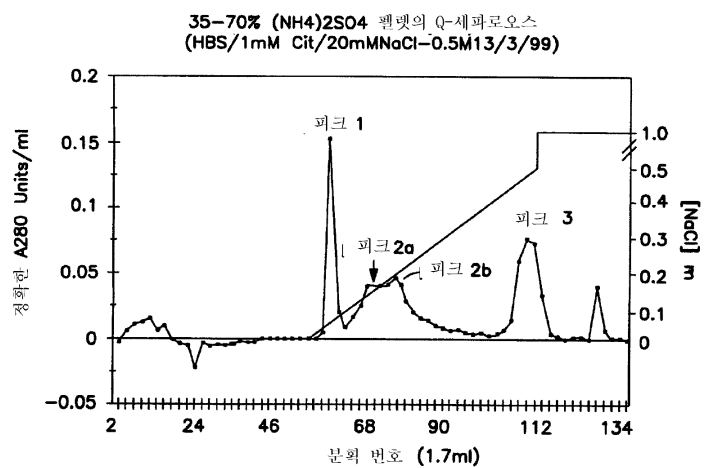
18



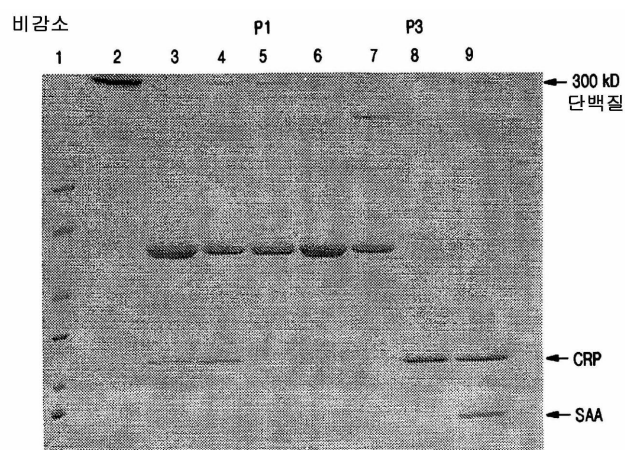
19



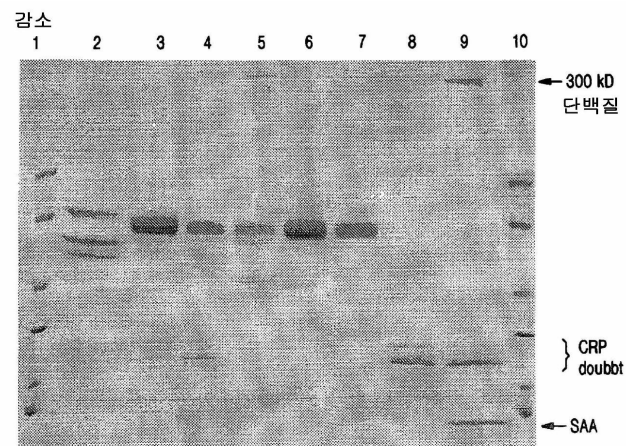
20



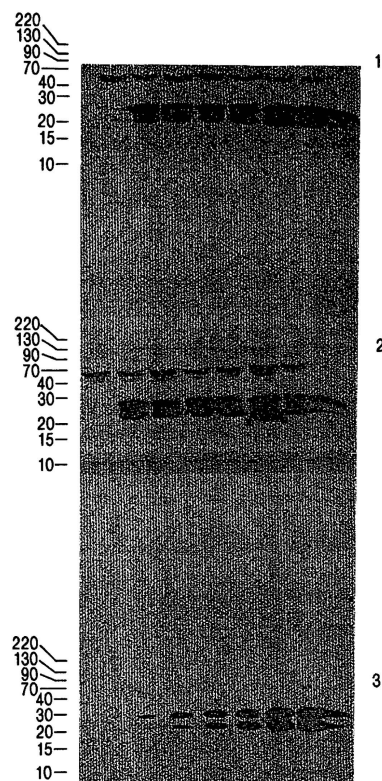
21a



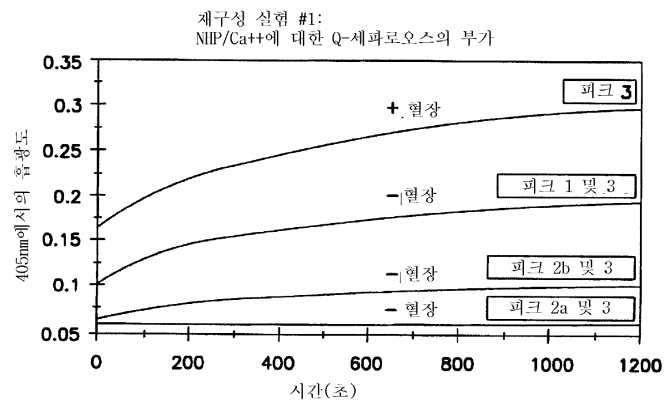
21b



22



23

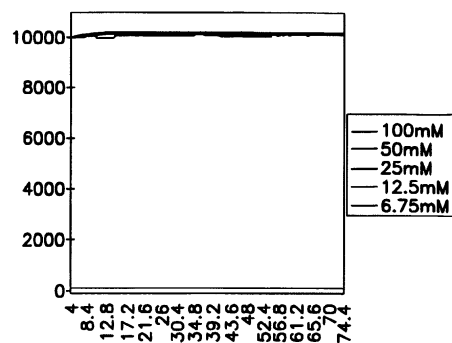


24

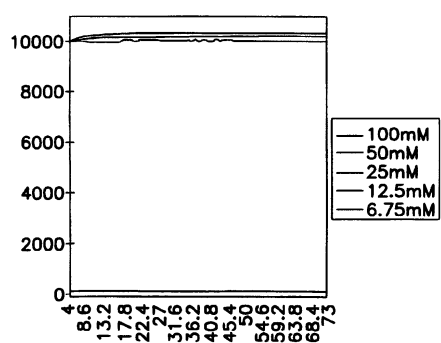
혈장 CRP 수준 및 칼슘-유도 탁도의 변화

혈장 표본	[CRP], ug/ml	텔타 A405nm
	0.73	0
Pt#1	248	0.329
Pt#2	277	0.235
Pt#3	319	0.345
Pt#4	443	0.170
Pt#5	478	0.640
Pt#6	492	0.230
Pt#7	528	0.140
Pt#8	576	0.640
Pt#9	600	0.390
Pt#10	639	0.160

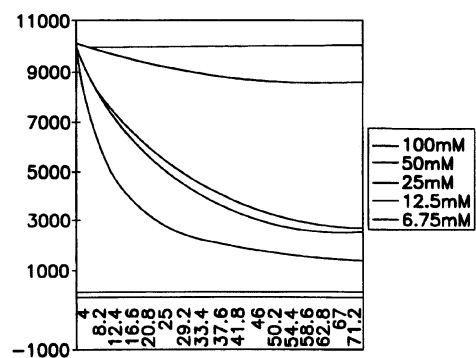
25a



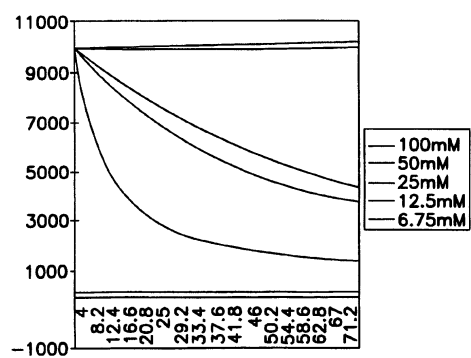
25b



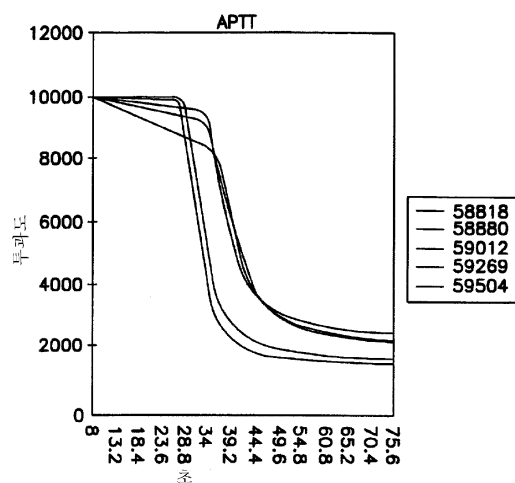
25c



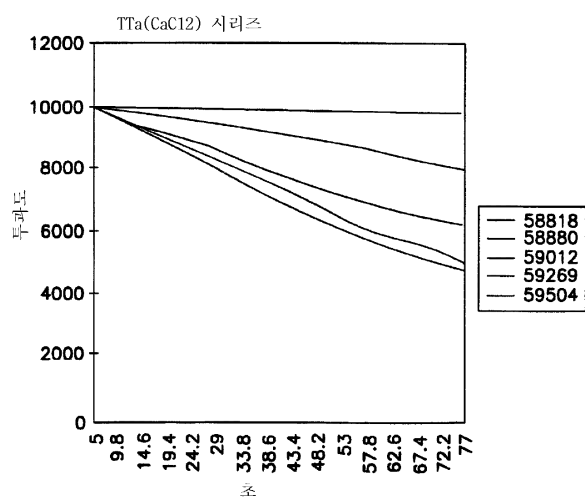
25d



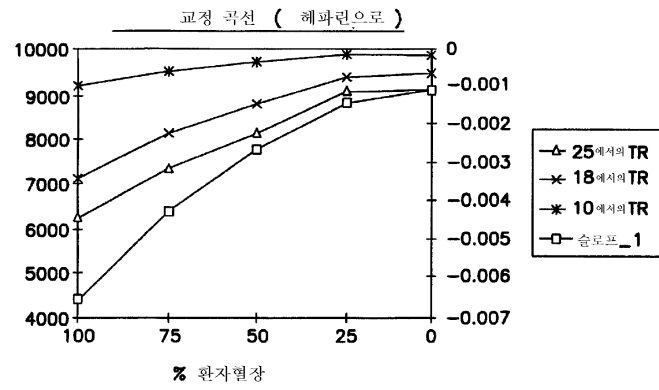
26a



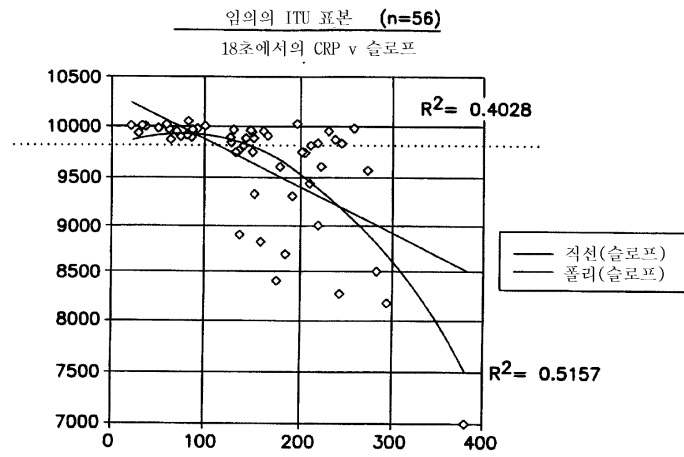
26b



27



28



29

