

(19)
(12)

$$\begin{pmatrix} (KR) \\ (A) \end{pmatrix}$$

(51) 。 Int. Cl. ⁷
G01N 33/86

(11)
(43)

2002 - 0042539
2002 06 05

(21)	10 - 2001 - 7016754
(22)	2001 12 28
	2001 12 28
(86)	PCT/US2000/18310
(86)	2000 06 30

(87)	WO 2001/01152
(87)	2001 01 04

[illegible]

(30)	09/345,080	1999 06 30	(US)
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(71)

	.	.			
	-6800	.	.	186	76

(72)	27572	3522
	27712	612
	27707	3118

(74)

• •

(54)

(103) -

$$(103) \quad - \quad (101) \quad \cdot \quad (113)$$

(113) 가 (110) (110) (103)
- (101) 가 .

7

1997 12 31 (Braun et al.) 09/001,647 ,
(Fischer et al.) 5,646,046 ,

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()

C, (fibrinogen), S /
, PT(Prothrombin Time) APTT(Activated Partial Thromboplastin Time),

가 . (PT
).
 ,
 ,
 ,
).
 가 (-

가 ,
 .
 ,
 . PT
 APTT
 ,
 APTT
 ,
 가
 (effectors)

. 가

- (a)
 ();
- (b)
 ;
- (c) (a) (b)
 - ;
- (d) (e), (f) (g) (h) (i)
 - ;
- (e) (a) (c) (topological)
 ,
 ;
- (f)
 ;
- (g)
 - ;
- (h) (a) (c)
 ;

(i) z - (b) z - (z - score) ,

z - , -

1 1 2 가 .

2 .

3 (1) , (2) , (3) , (4)
, (5) (6) (II, V, VII, VI
II, IX, X, XI XII) APTT SOM

4 (1) , (2) , (3) , (4)
, (5) (6) (II, V, VII, VI
II, IX, X, XI XII) PT SOM

5 PT " " () " " ()
ROC (x SD 's , " " ,
x 1sd, 2sd, 3sd,).

6 APTT " " () " " ()
ROC (x SD 's , " "
, x 1sd, 2sd, 3sd,).

7 .

가 , 7 , (101) (103)
" - " (, PT, APTT, , C, S, TT(
Thrombin Time) -) (100) (,
) " " (,
/ (,
) . , - / .
, PT , TT , APTT /
, 2 () , PT APTT
2 () .

(90)

가

(110).

, 9

PT APTT

2

(-

가

; 2)

1)

; 3)

" 가 "

"

; 4)

1

2

(113)

(topological)

(113)

(120)

(121).

(120)

(122)

/

(124)

(95)

가

가

(neurons)

(self - organizing map, SOM)

가

1. PT

APTT

765

가

200

2. 200

(FII, FV, FVII, FVIII, FIX, FX, FXI, FXII)

(cut - off) 30% ; ,

30% 가
 가 0.05 IU/Ml 30%

3. - 1 PT APTT

4. 2 9 3

5. 10 × 10 SOM 4 9 PT 765

6. 10 × 10 SOM 4 9 APTT 765

7. : , > 0.05 IU/Ml,
 > 600 mg/dl, < 200 mg/dl ,
 (FII, FV, FVII, FVIII, FIX, FX, FXI FXII 30%).

가

3 APTT SOM

SOM

가

가

APTT

PT

가

APTT

PT 가 - : (1)
 APTT ; (2)

4

; (3)

PT

; (4)

(oral anticoagulated)

;

(5)

AP

TT PT

가

가

:

1. PT / APTT

2. -

3. SOM

4.

5. 1

:

가

PT

(5)

APTT

(6

).

1. (standard deviation, SD)가 (n=79) (PT APTT) 2 9

2. Z - (n=79) (n=410) SD

Z - , - , DIC

3. , (true) , , 가(false) x SD (x=1, 2, 3, 4, 5,)

Z - ,

4. , 1 3 PT APTT

-

(57)

1.

- (a)
;
- (b)
;
- (c) (a) (b) -
;
;
- (e) (a) (c) (topological)
;
- (f)
;
- (g) -
-
-
.
2.
1 , (c) , -
/ .
3.
2 , (c) , 2 , 1 , 1
2 , 2 , 2 , -
.
4.
1 , .
5.
1 , 가 /
.
6.
1 , - PT(Prothrombin Time)
.

7.

1 , - APTT(Activated Partial Thromboplastin Time)
e)

8.

1 , -
.

9.

8 , /
.

10.

1 , (c) 가 , 가 가
.

11.

1 , (a) (b) , -
.

12.

1 , .

13.

1 ,
.

14.

13 , .

15.

13 , (a) (b) ,
, 가 , ,
.

16.

13 , (f) , ()
/ .

17.

(a)
;

(b) -
;

(c) (a) (b) -
;

(d) (a) (c)
;

(e) (b) z - ,
z - ,
-
.

18.

17 , (c) , -
 , /
.

19.

18 , (c) , 1 , 1
2 , 2 , 2 ,
2 , 2 ,
.

20.

17 ,
.

21.

17 , 가 /
.

22.

17 , - PT(Prothrombin Time)

23.

17 , - APTT(Activated Partial Thromboplastin Time)

24.

17 , -

25.

24 , /

26.

17 , (a) (b) , -

27.

17 ,

28.

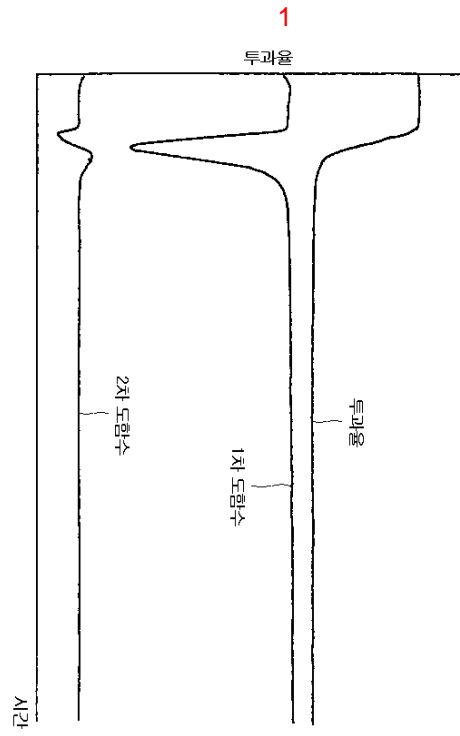
17 ,

29.

17 , (a) (b) ,
가 ,

30.

17 , (f) , z -
/

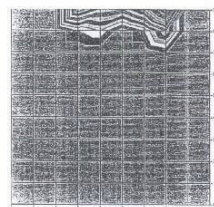


2

예측 변수들

예측 변수	설 명
$pv_{j1} = \left(\frac{dT}{dt} \right)_{\min}$	1차 도함수의 최소값
$pv_{j2} = t \text{ at } \left(\frac{dT}{dt} \right)_{\min}$	1차 도함수의 최소값의 시간 인덱스
$pv_{j3} = \left(\frac{d^2T}{dt^2} \right)_{\min}$	2차 도함수의 최소값
$pv_{j4} = t \text{ at } \left(\frac{d^2T}{dt^2} \right)_{\min}$	2차 도함수의 최소값의 시간 인덱스
$pv_{j5} = \left(\frac{d^2T}{dt^2} \right)_{\max}$	2차 도함수의 최대값
$pv_{j6} = t \text{ at } \left(\frac{d^2T}{dt^2} \right)_{\max}$	2차 도함수의 최대값의 시간 인덱스
$pv_{j7} = T_{i_0} - T_{i_n}$	반응중 투과율의 전체 변동
$pv_{j8} = \frac{(T_{pv_{j2}} - T_{i_0})}{pv_{j2} - t_n}$	전-응고 기울기
$pv_{j9} = \frac{(T_{\max} - T_{pv_{j5}})}{(t_{\max} - pv_{j5}) - t_n}$	후-응고 기울기

3



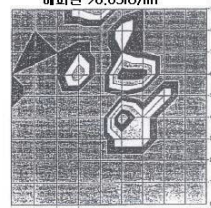
정상 제공자



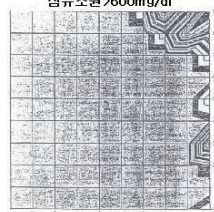
헤파린 >0.05IU/ml



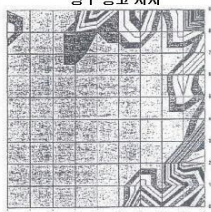
섬유소원 >600mg/dl



경구 응고 저지

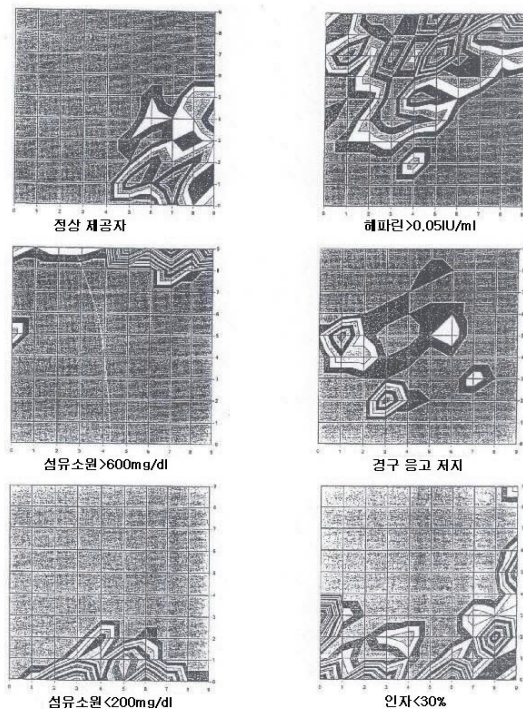


섬유소원 <200mg/dl

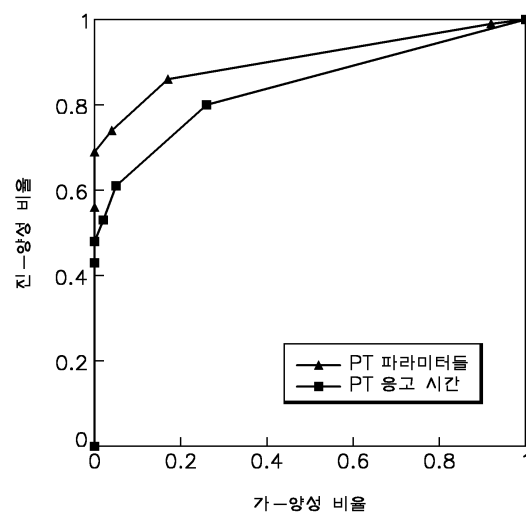


인자 <30%

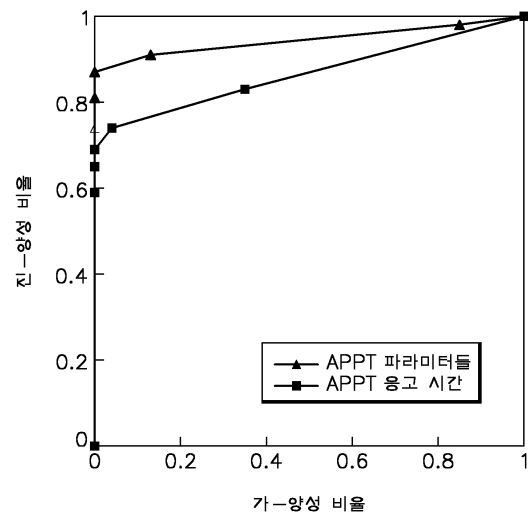
4



5



6



7

