

가
450 nm,
TGF- 1 570 nm
(car- 가 2 well
cinoembryonic antigen, CEA) CV(%) 10
TGF- 1
3)
TGF- 1
1) 가 ROC (Receiver Operating Charac-
teristic) . ROC
cut-off value (sensitivity)
52 1- (specificity)
290 (sensitivity)
, (specificity)
EDTA . ROC TGF- 1
3,000 rpm 20
4°C ,
1.5 mL -70°C
2) TGF- 1
TGF- 1 ELISA
Human TGF- 1 immunoassay kit 4)
(R&D Systems, Minneapolis, MN) - 50 (- 52
290) TGF- 1
(latent) TGF- 1
100 µL 2.5 N acetic
acid/ 10 M urea () 2.7 N NaOH/ 1
M HEPES
TGF- II 가 coat-
ing 96 well (specificity) (sensiti-
200 µL vity)
(20 25°C) 3
3
200 µL TGF- 1 -HRP (horseradish peroxidase)
conjugate well 1 30 1) - TGF- 1
TGF- 1 -HRP conjugate TGF- 1
3 200 µL 20 1.219±0.834 (0.272 5.772) ng/mL, -
50 µL 8.207±2.428 (1.392 39.241) ng/mL
가 30 (Table 1), TGF- 1

가 (Fig. 1).

2) ROC

TGF- 1 ROC Fig. 2

ROC

90% 2.0 ng/mL

Table 2

(2.0 ng/mL)

TGF- 1

(cut-off value)

3) (CEA)

McNemar

, TGF- 1

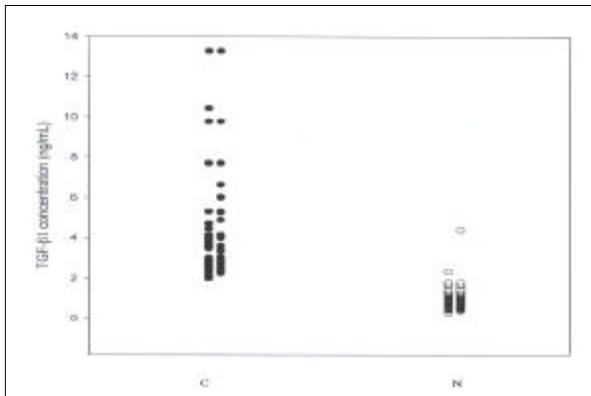


Fig. 1. Distribution of TGF- 1 concentration in the plasma of colorectal cancer patients and normal controls (ng/mL).

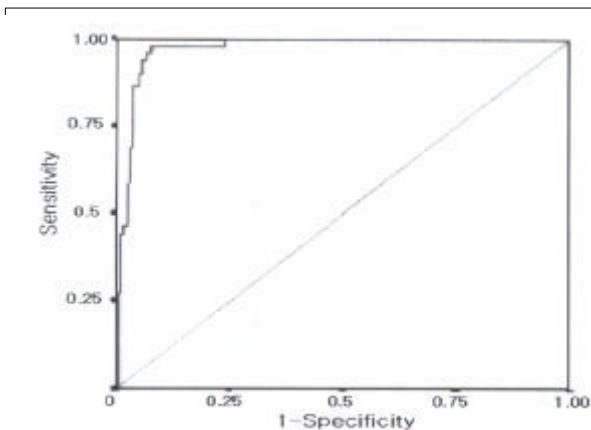


Fig. 2. ROC curve of colorectal cancer patients.

(CEA) 42% (50 21), TGF- 1 94% (50 47)

Table 1. TGF- 1 concentrations (ng/mL) in the plasma of colorectal cancer patients and normal controls

	Plasma TGF- 1 concentration (Range)	Tested number
Colorectal cancer	8.207 ± 2.428* (1.392 - 39.241)	52
Normal	1.219 ± 0.834* (0.272 - 5.772)	290

*Data = Mean ± Standard deviation

Table 2. Sensitivity and specificity of ROC curve according to TGF- 1 concentration (ng/mL)

TGF- 1 concentration (ng/mL)	Sensitivity	Specificity
1.8370	0.981	0.910
1.8415	0.981	0.914
1.8455	0.981	0.917
1.8790	0.981	0.921
1.9130	0.962	0.921
1.9180	0.962	0.924
1.9395	0.962	0.928
1.9625	0.962	0.931
1.9890	0.962	0.934
2.0460	0.942	0.934
2.1045	0.942	0.938
2.1950	0.942	0.941
2.2755	0.923	0.941
2.3005	0.923	0.945
2.3200	0.904	0.945
2.3320	0.904	0.948

Table 3. Comparison of sensitivity and specificity with CEA in colorectal cancer patients and normal controls (p= 0.0000)

Tumor marker	CEA	TGF- 1
Sensitivity	21/50	47/50
(Colorectal cancer 50 case)	(42%)	(94%)
Specificity	50/50	50/50
(Normal 50 case)	(100.0%)	(100.0%)

Cut-off value: CEA < 4.5 ng/mL, TGF- 1 < 2.0 ng/mL

p-value 0.0000
(CEA)

TGF- 1
가

, AFP (alpha-feto protein)
²³

()가 (Table 3).
50

TGF- 1

TGF- 1
TGF- 1

TGF- 1

TGF- 1
50

TGF- 1

TGF- 1
가

가

TGF- 1

TGF- 1

TGF- 1

²⁰

TGF-

TGF- 1

1

TGF- 1 (1,219 ng/mL)+2
(0.834 ng/mL) 2.887 ng/mL

⁹⁻¹⁴ TGF- 52 10 (19.2%)

1

+1 2.053 ng/mL

52 3 (5.8%)

ROC 2.0 ng/
mL 52

¹⁵ ¹⁶ 2 (3.8%)

TGF- 1

TGF- 1

¹⁷⁻¹⁹

TGF- 1

TGF- 1 가

2
TGF- 1

가
가

Shim ²⁰
가

가

TGF- 1

TGF- 1

TGF- 1 mRNA 2
가 TGF- 1

TGF- 1
가

1

가 TGF-
가 ²¹

TGF- 1 가

가 , TGF- 1 가

TGF- 1

가

가

TGF- 1

가

²² TGF- 1

TGF- 1

TGF- 1
1
2
TGF- 1
TGF- 1
가

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가

ELISA TGF- 가 (species) 가

TGF-

가

가

TGF- 1 가

TGF- 1

가

ELISA TGF- 1 TGF- 1

