FIG. 1

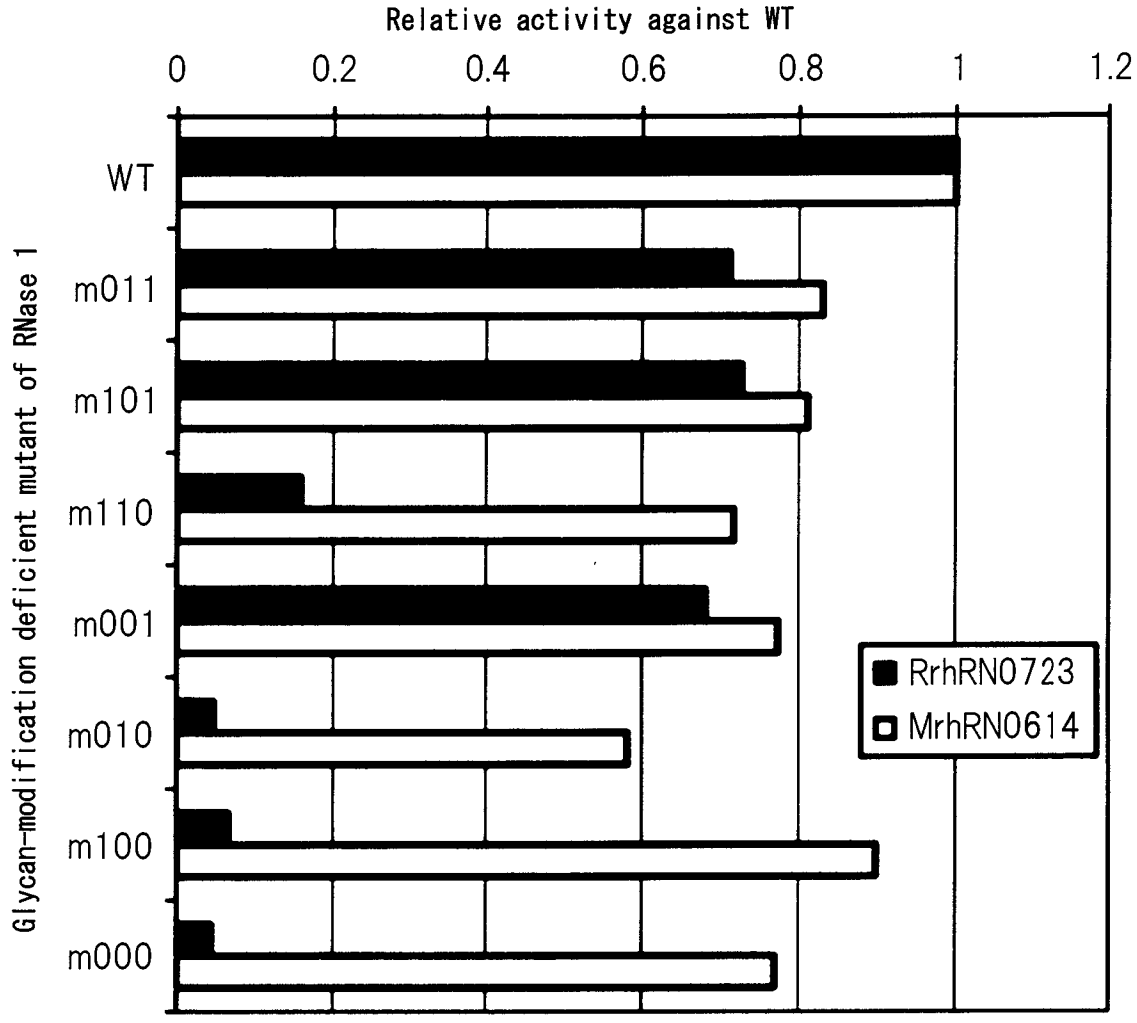

Relative activity against WT
0
0.2
0.4
0.6
0.8
1
1.2
Glycan-modification deficient mutant of RNase 1
WT
m011
m101
m110
m001
m010
m100
m000
RrhRN0723
MrhRN0614

FIG. 2

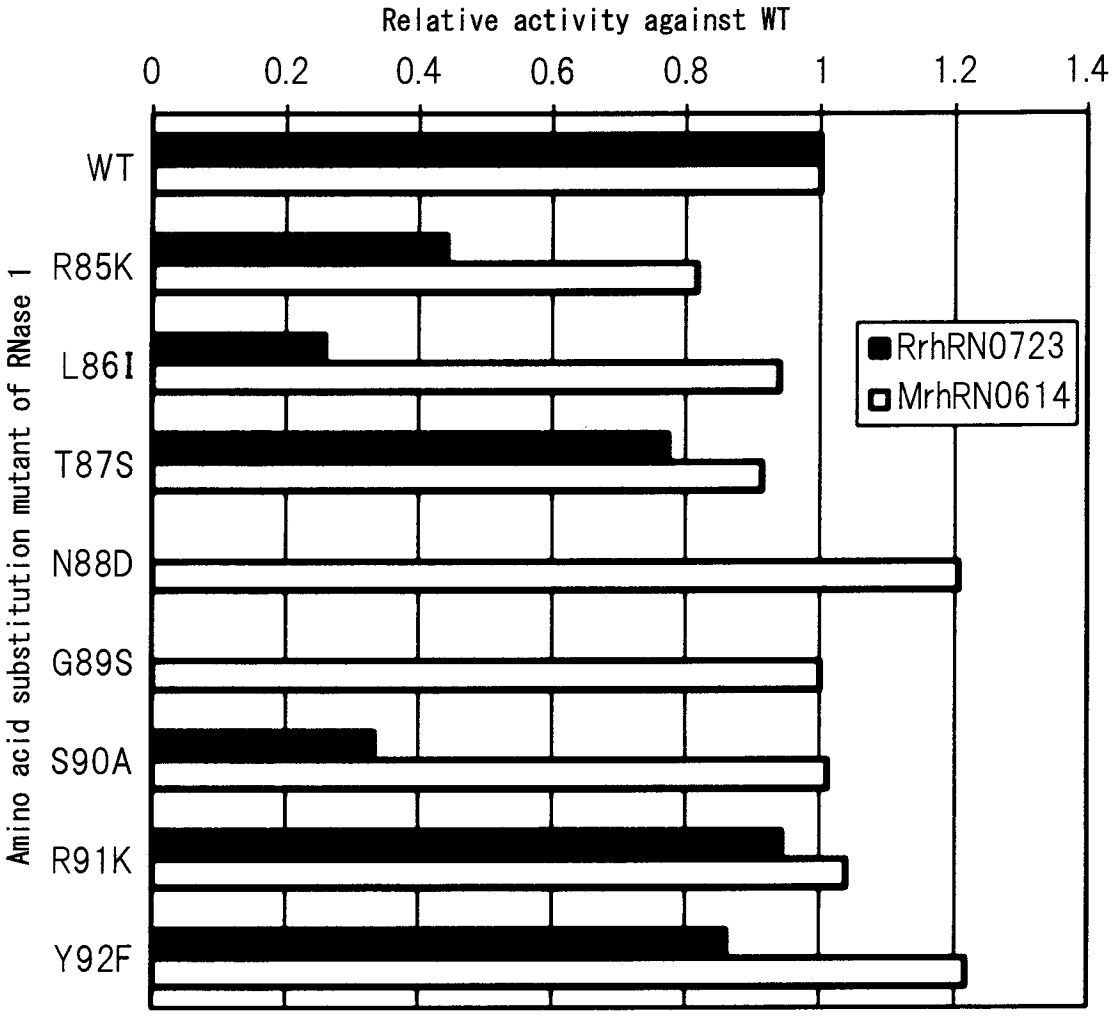
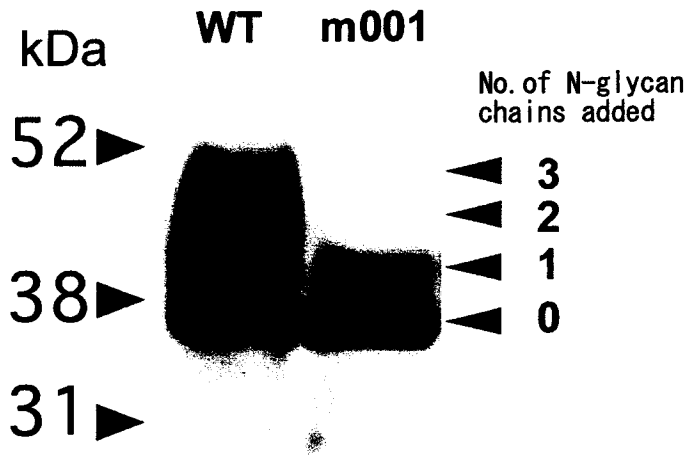

Relative activity against WT
0
0.2
0.4
0.6
0.8
1
1.2
1.4
WT
R85K
L86I
T87S
N88D
G89S
S90A
R91K
Y92F
Amino acid substitution mutant of RNase 1
RrhRN0723
MrhRN0614

FIG. 3



Immunoprecipitation antibody:Anti-human kappa light chain antibody
Immunostaining antibody:Anti-RNase 1 antibody(RN15013)

FIG. 4

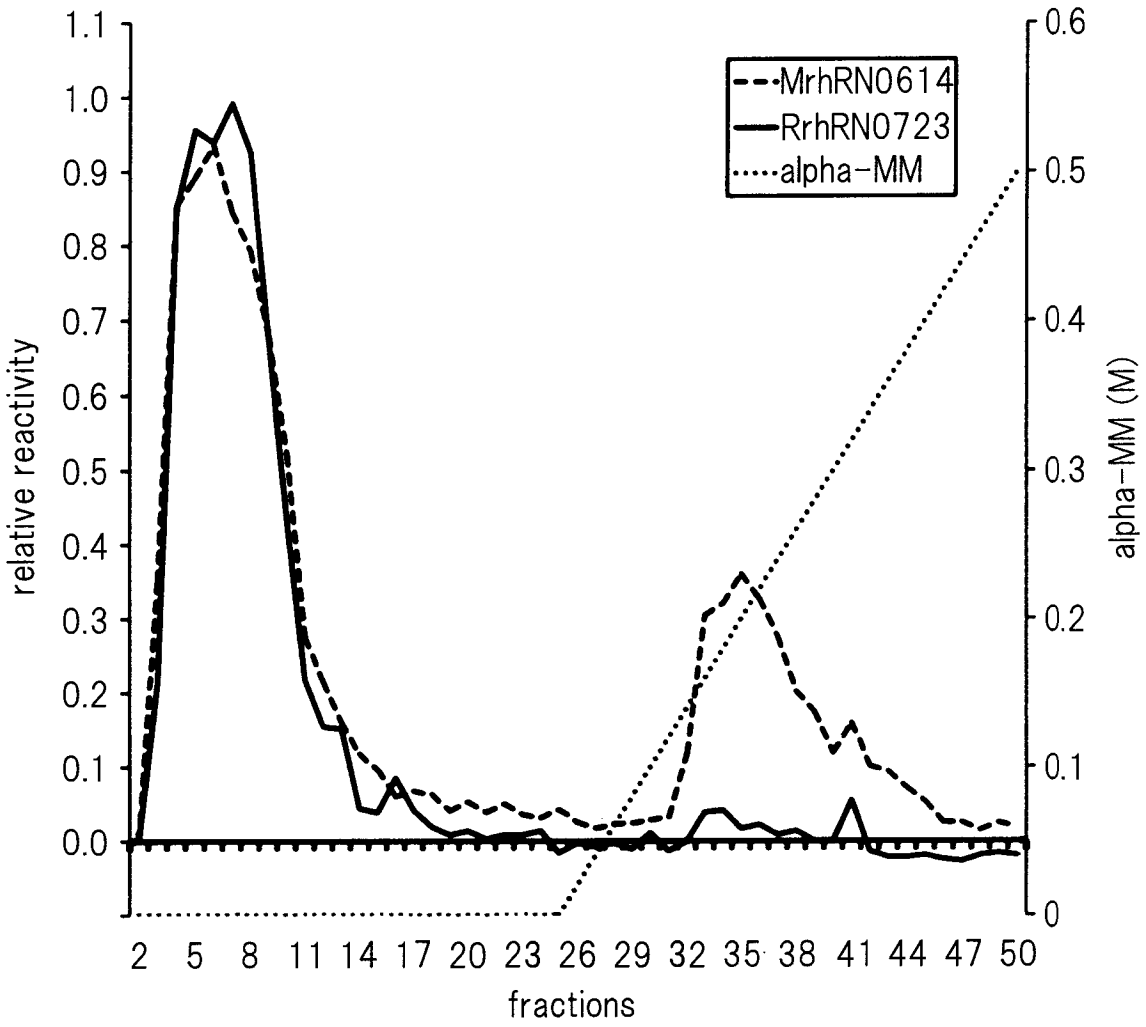

MrhRN0614
RrhRN0723
alpha-MM
relative reactivity
alpha-MM (M)
fractions
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.6
0.5
0.4
0.3
0.2
0.1
0
2 5 8 11 14 17 20 23 26 29 32 35 38 41 44 47 50

FIG. 5

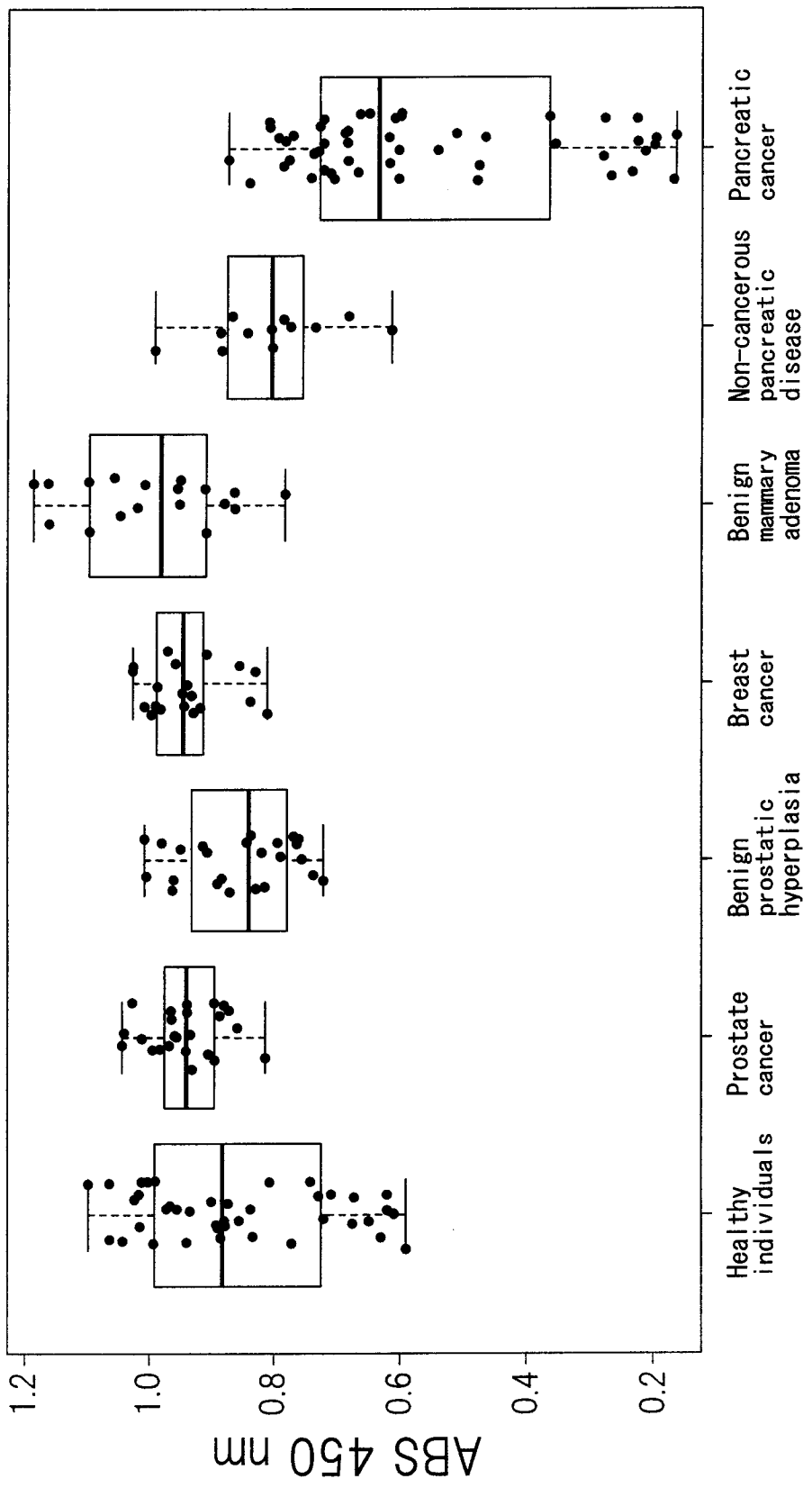

ABS 450 nm
1.2
1.0
0.8
0.6
0.4
0.2
Healthy individuals
Prostate cancer
Benign prostatic hyperplasia
Breast cancer
Benign mammary adenoma
Non-cancerous pancreatic disease
Pancreatic cancer

FIG. 6

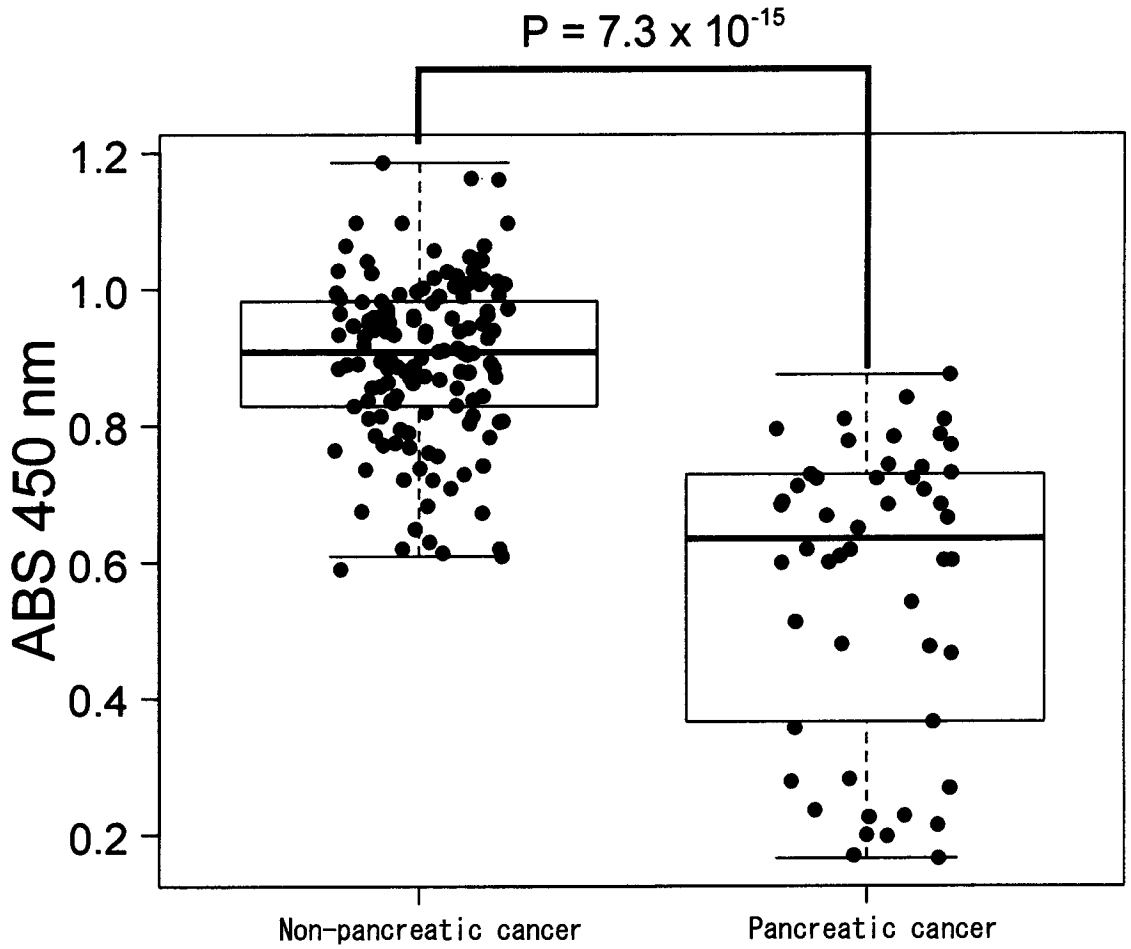

P = 7.3 x 10-15
ABS 450 nm
1.2
1.0
0.8
0.6
0.4
0.2
Non-pancreatic cancer
Pancreatic cancer

FIG. 7

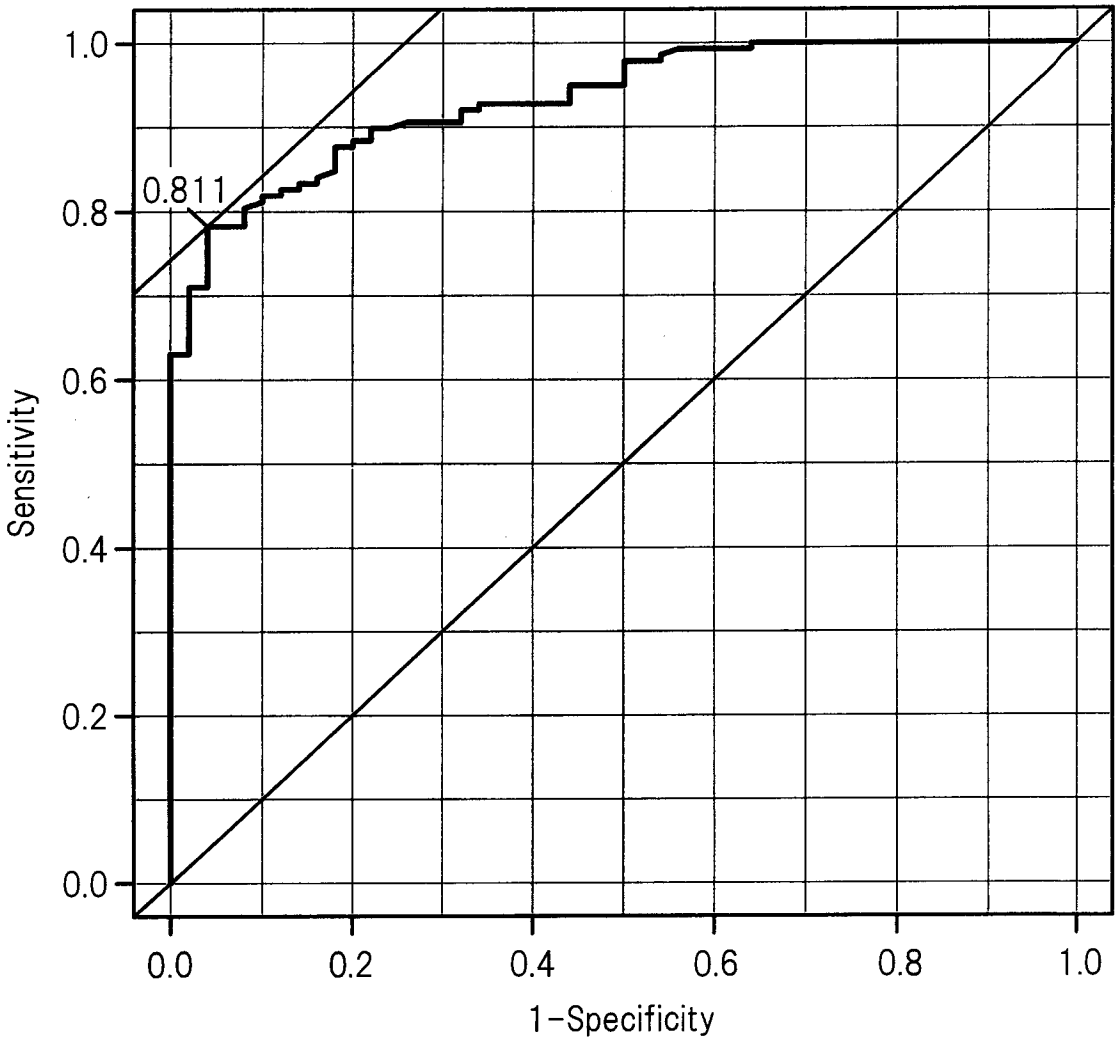

1.0
0.8
0.6
0.4
0.2
0.0
Sensitivity
0.811
0.0
0.2
0.4
0.6
0.8
1.0
1-Specificity

FIG. 8

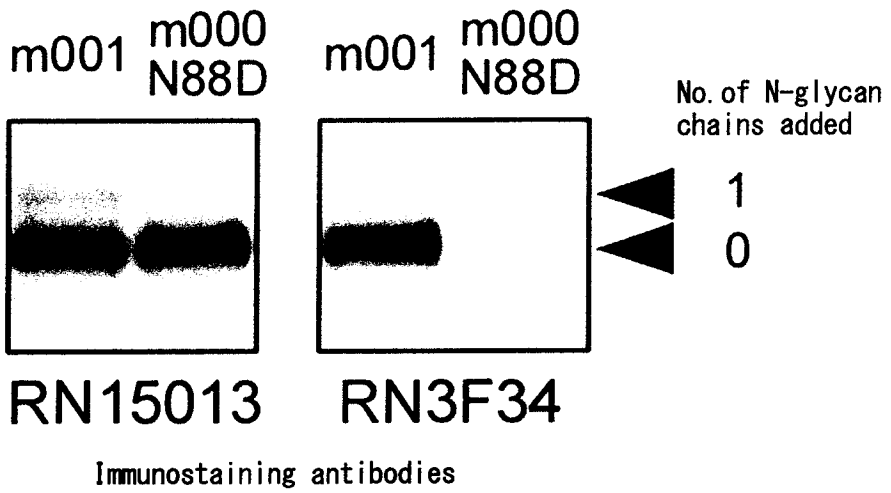

m001
m000 N88D
m001
m000 N88D
No. of N-glycan chains added
1
0
RN15013
RN3F34
Immunostaining antibodies

FIG. 9

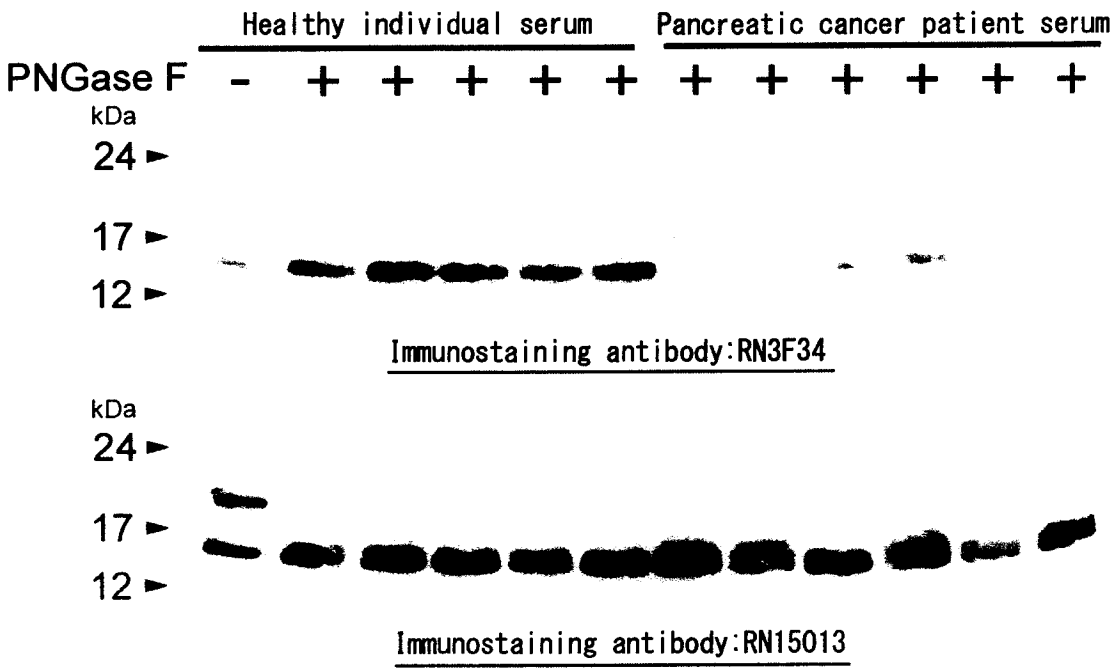

Healthy individual serum
Pancreatic cancer patient serum
PNGase F - + + + + + + + + + + +
kDa
24
17
12
Immunostaining antibody:RN3F34
kDa
24
17
12
Immunostaining antibody:RN15013

FIG. 10

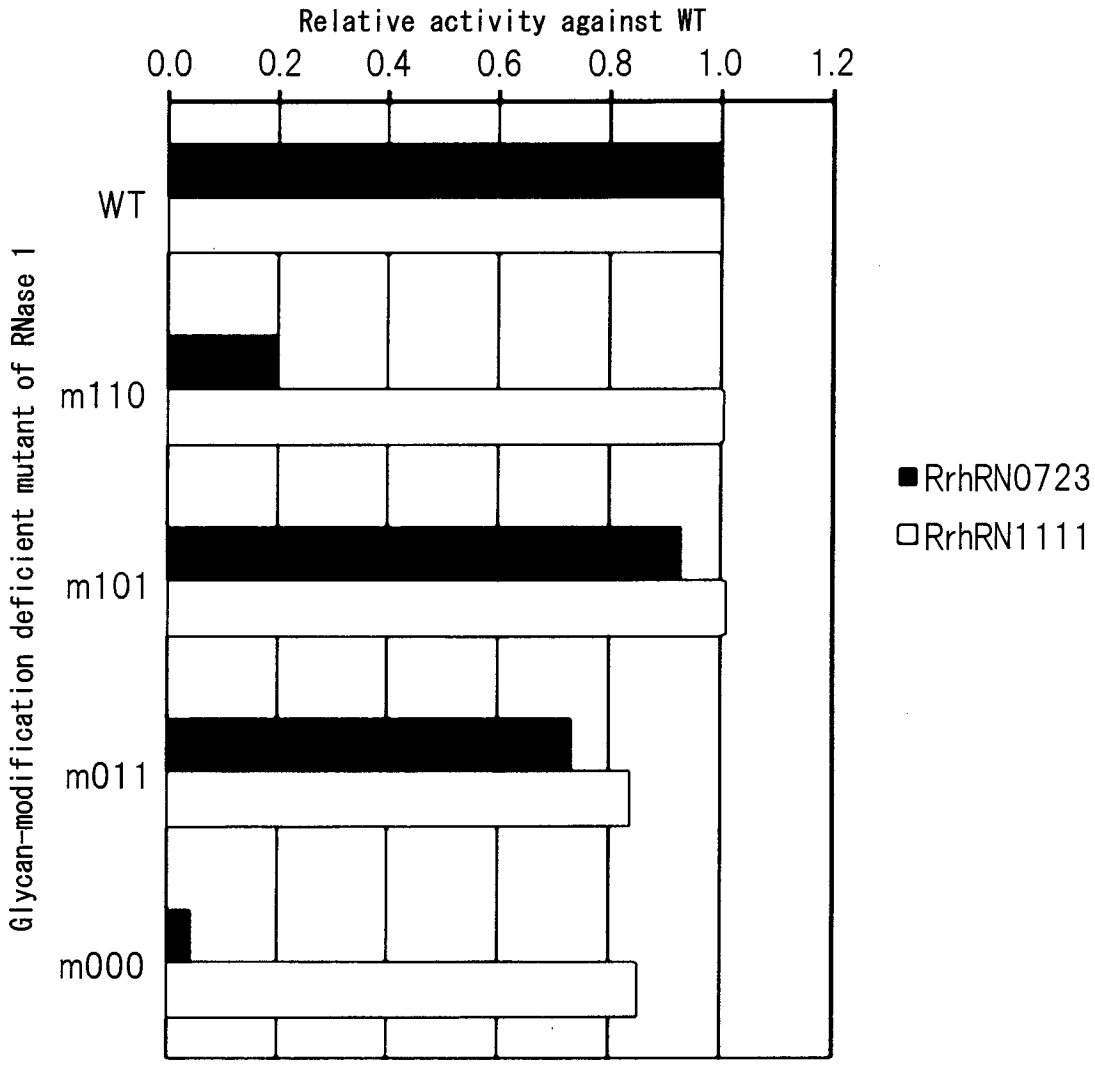

Relative activity against WT
0.0
0.2
0.4
0.6
0.8
1.0
1.2
Glycan-modification deficient mutant of RNase 1
WT
m110
m101
m011
m000
RrhRN0723
RrhRN1111

FIG. 11

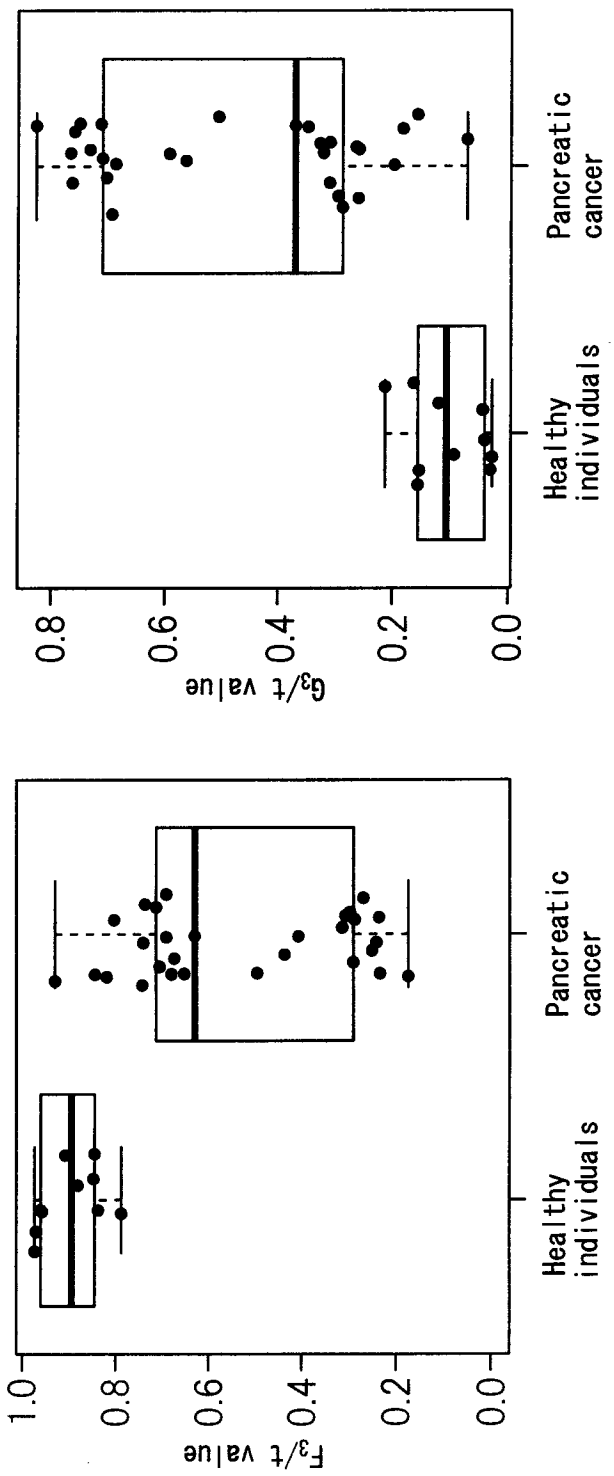
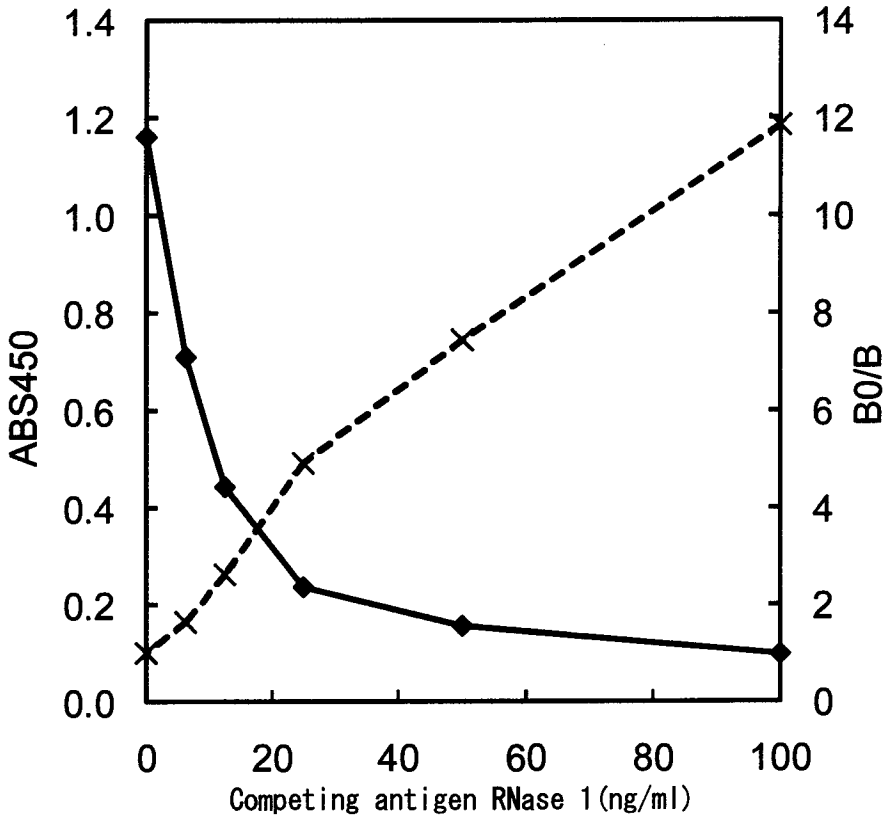

G_3/t value
0.0
0.2
0.4
0.6
0.8
Healthy individuals
Pancreatic cancer
F_3/t value
0.0
0.2
0.4
0.6
0.8
1.0
Healthy individuals
Pancreatic cancer

FIG. 12


1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
ABS450
14
12
10
8
6
4
2
0
B0/B
0
20
40
60
80
100
Competing antigen RNase 1(ng/ml)