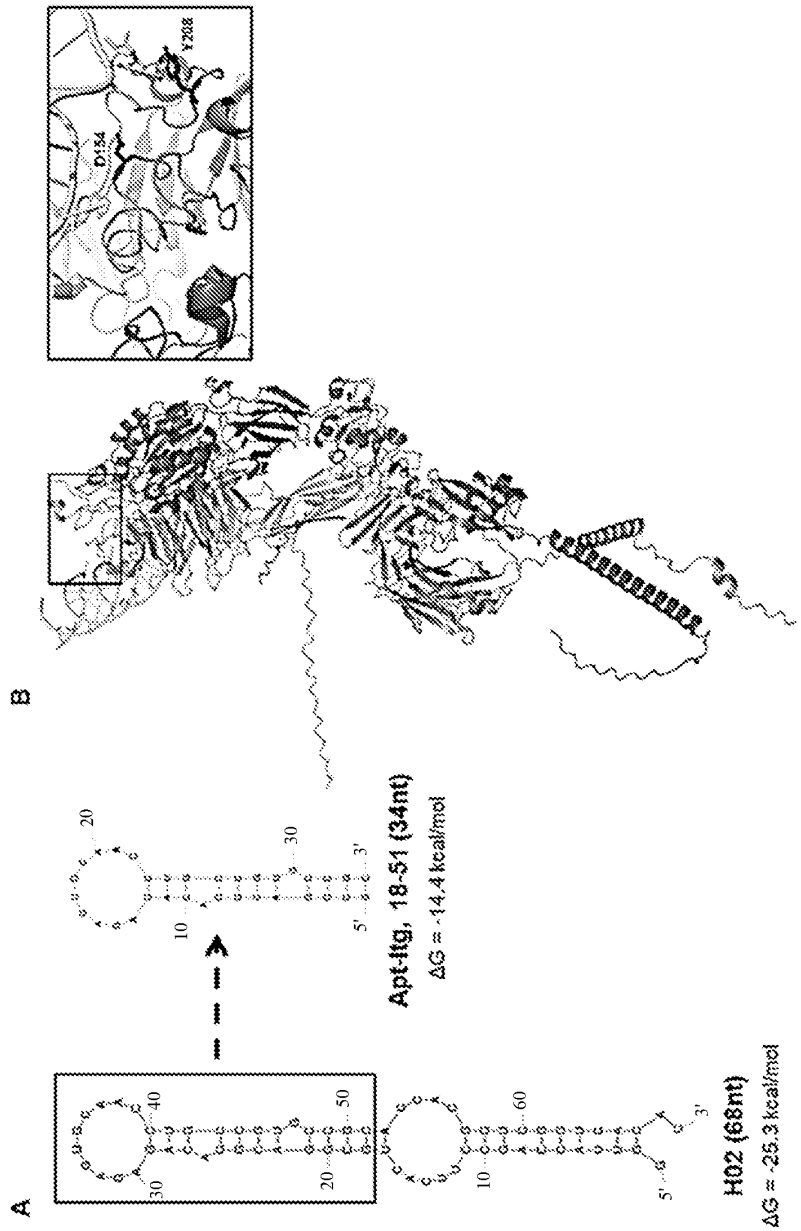


Fig. 1

SUBSTITUTE SHEET (RULE 26)

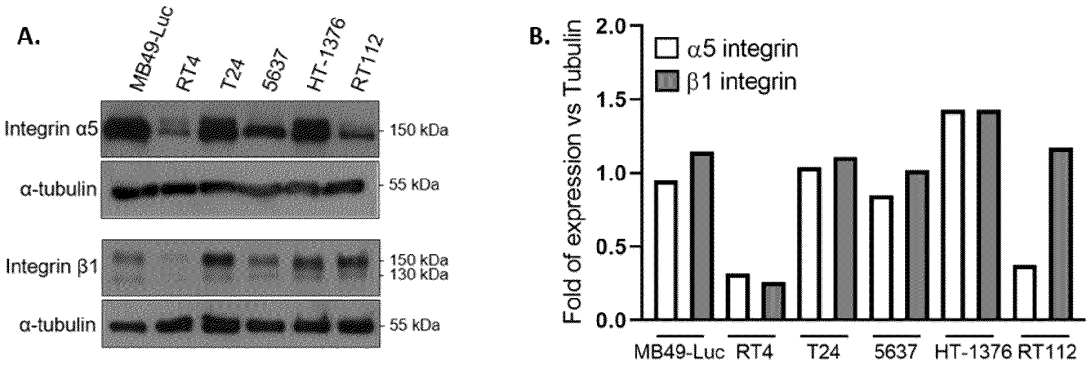

A.
MB49-Luc
RT4
T24
5637
HT-1376
RT112
Integrin α5
150 kDa
α-tubulin
55 kDa
Integrin β1
150 kDa
130 kDa
α-tubulin
55 kDa
B.
Fold of expression vs Tubulin
2.0
1.5
1.0
0.5
0.0
α5 integrin
β1 integrin
MB49-Luc
RT4
T24
5637
HT-1376
RT112

Fig. 2

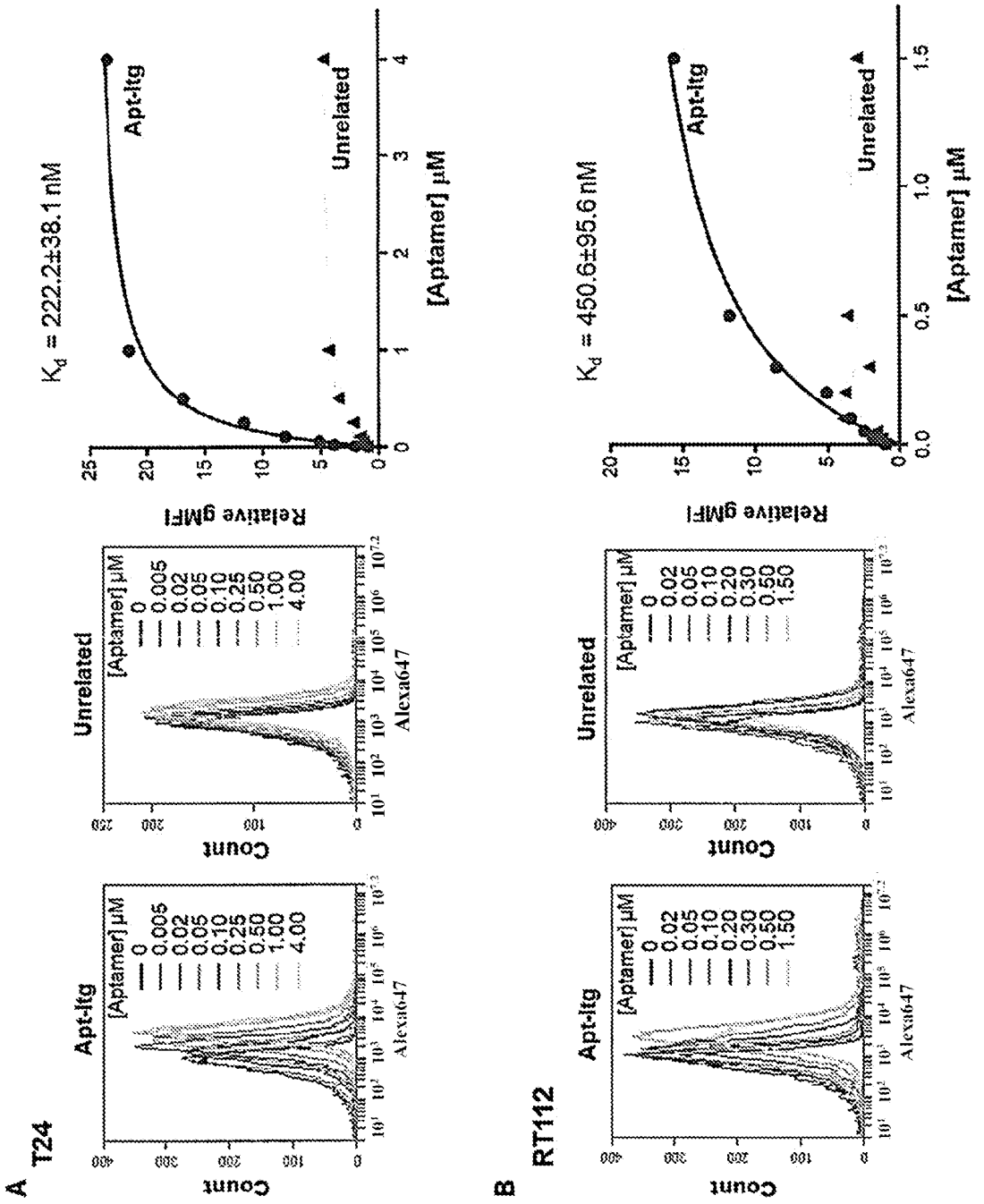

A
T24
Apt-ltg
Unrelated
[Aptamer] µM
0
0.005
0.02
0.05
0.10
0.25
0.50
1.00
4.00
Count
Alexa647
Relative gMFI
K_d = 222.2±38.1 nM
[Aptamer] µM
B
RT112
0.02
0.05
0.10
0.20
0.30
0.50
1.50
K_d = 450.6±95.6 nM

Fig. 3

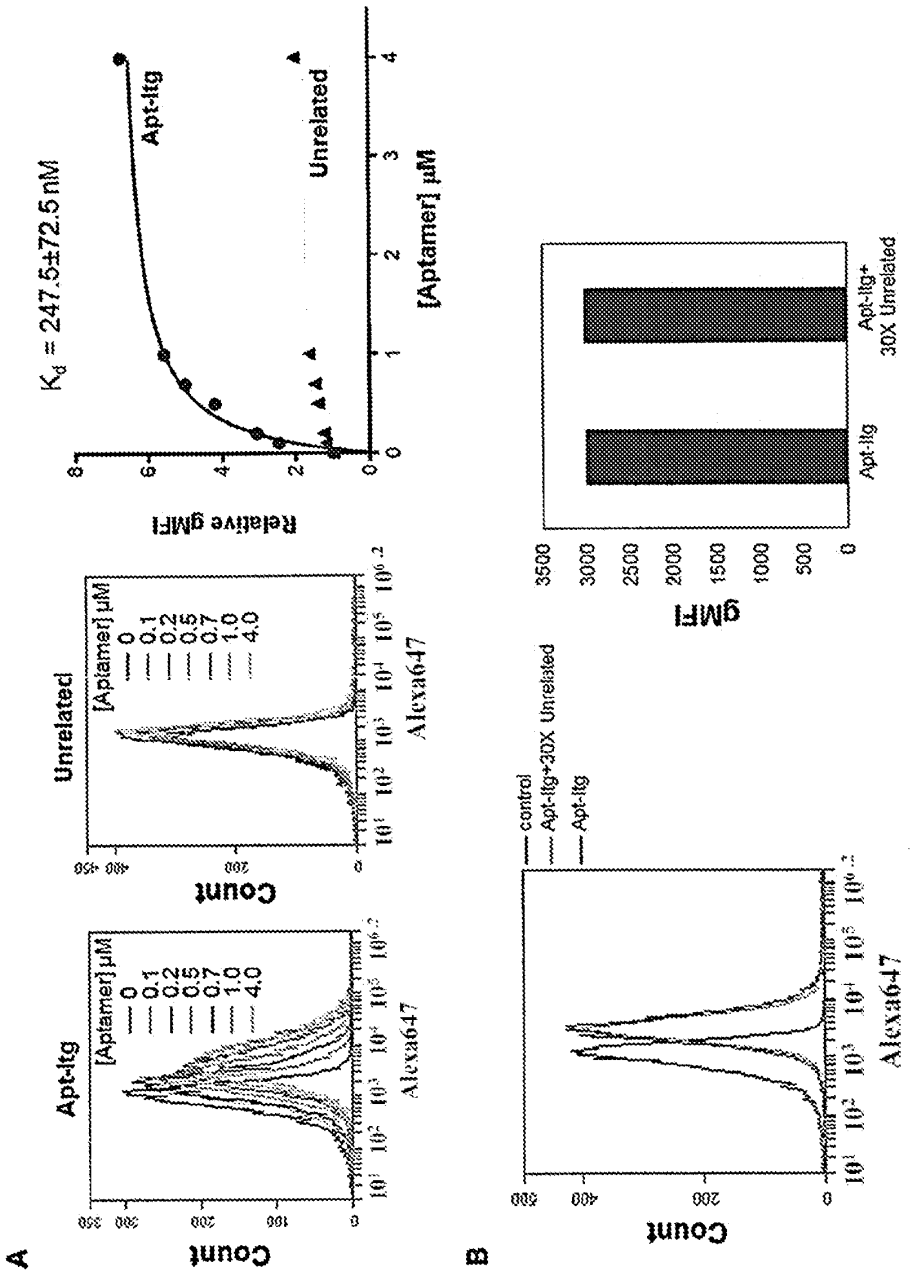

A
B
Apt-ltg
Unrelated
K_d = 247.5±72.5 nM
Relative gMFI
[Aptamer] µM
Count
Alexa647
[Aptamer] µM
0
0.1
0.2
0.5
0.7
1.0
4.0
control
Apt-ltg+30X Unrelated
Apt-ltg
gMFI
Apt-ltg+
30X Unrelated

Fig. 4

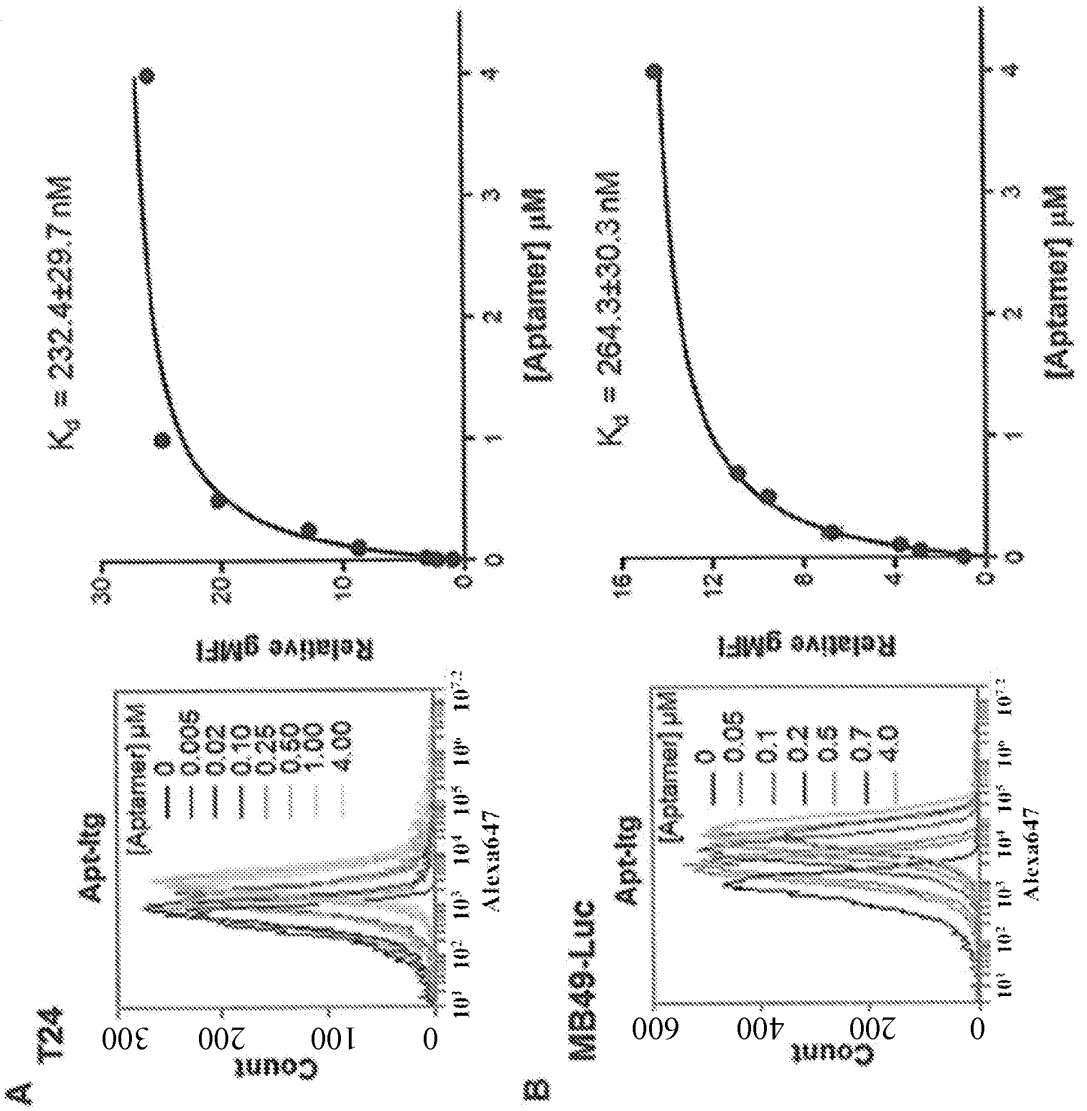
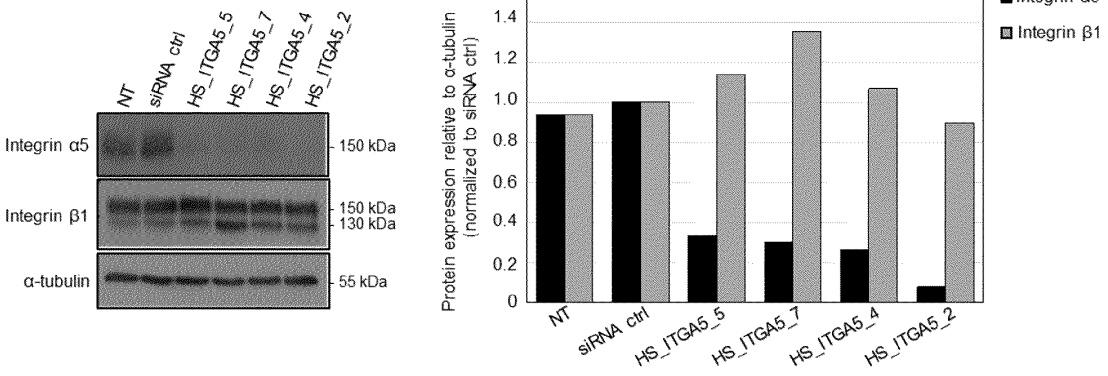

A
T24
Apt-ltg
[Aptamer] µM
0
0.005
0.02
0.10
0.25
0.50
1.00
4.00
Count
Alexa647
Relative gMFI
[Aptamer] µM
K_d = 232.4±29.7 nM
B
MB49-Luc
Apt-ltg
[Aptamer] µM
0
0.05
0.1
0.2
0.6
0.7
4.0
Count
Alexa647
Relative gMFI
[Aptamer] µM
K_d = 264.3±30.3 nM

Fig. 5

T24



RT112

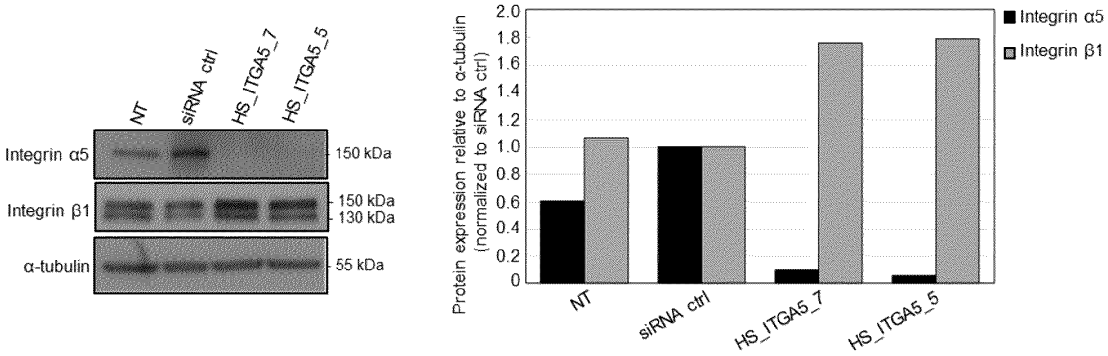


Fig. 6 (1/2)

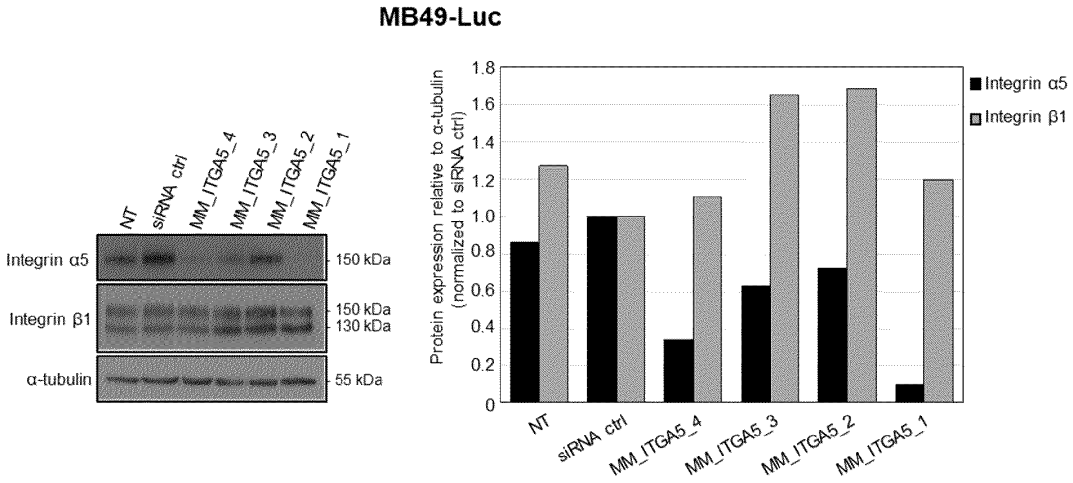

MB49-Luc
NT
siRNA ctrl
MM_ITGA5_4
MM_ITGA5_3
MM_ITGA5_2
MM_ITGA5_1
Integrin α5
Integrin β1
α-tubulin
150 kDa
150 kDa
130 kDa
55 kDa
Protein expression relative to α-tubulin (normalized to siRNA ctrl)
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0
Integrin α5
Integrin β1
NT
siRNA ctrl
MM_ITGA5_4
MM_ITGA5_3
MM_ITGA5_2
MM_ITGA5_1

Fig. 6 (2/2)

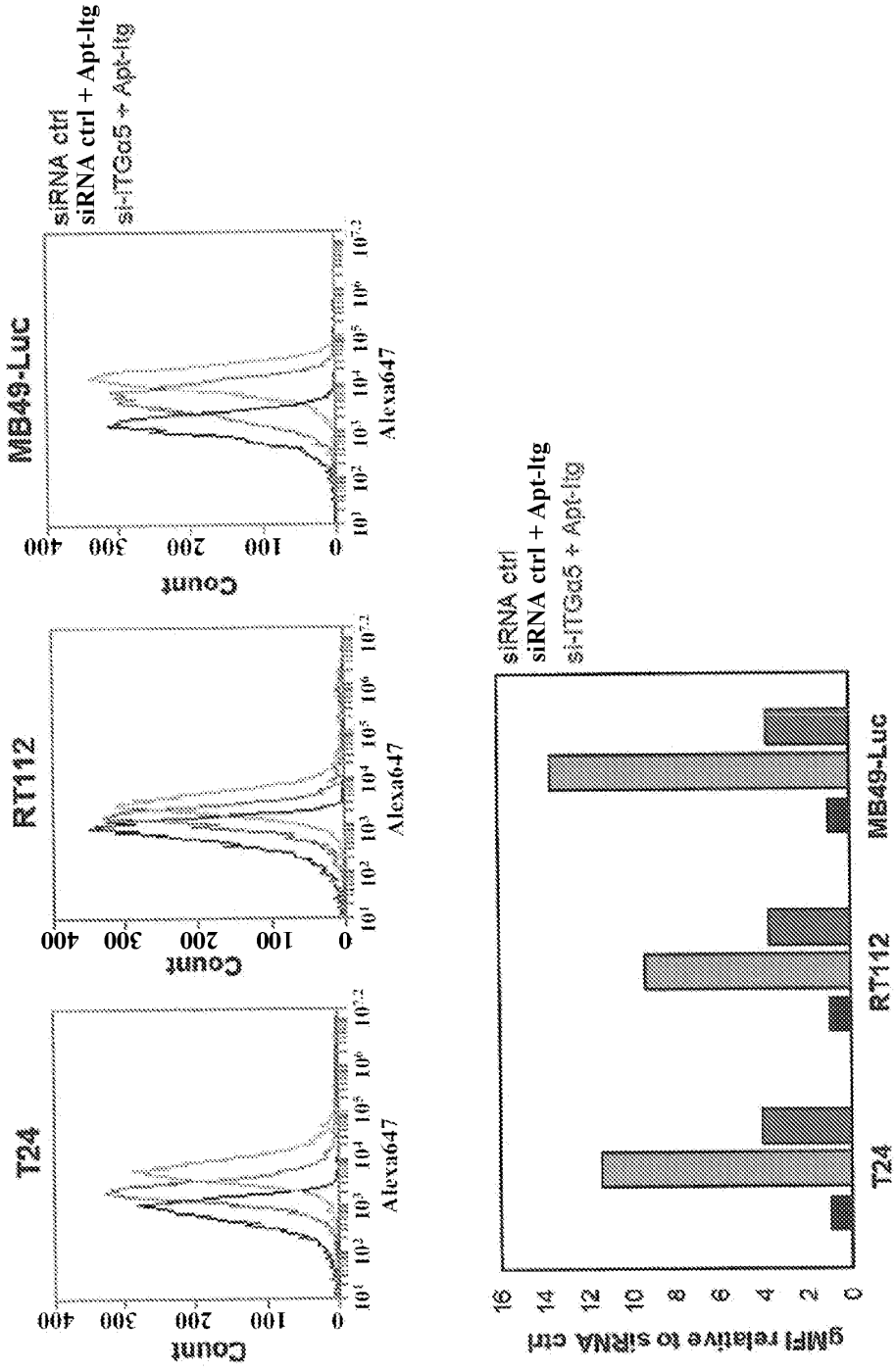

siRNA ctrl
siRNA ctrl + Apt-Itg
si-ITGa5 + Apt-Itg
MB49-Luc
RT112
T24
Count
Alexa647
gMFI relative to siRNA ctrl

Fig. 7

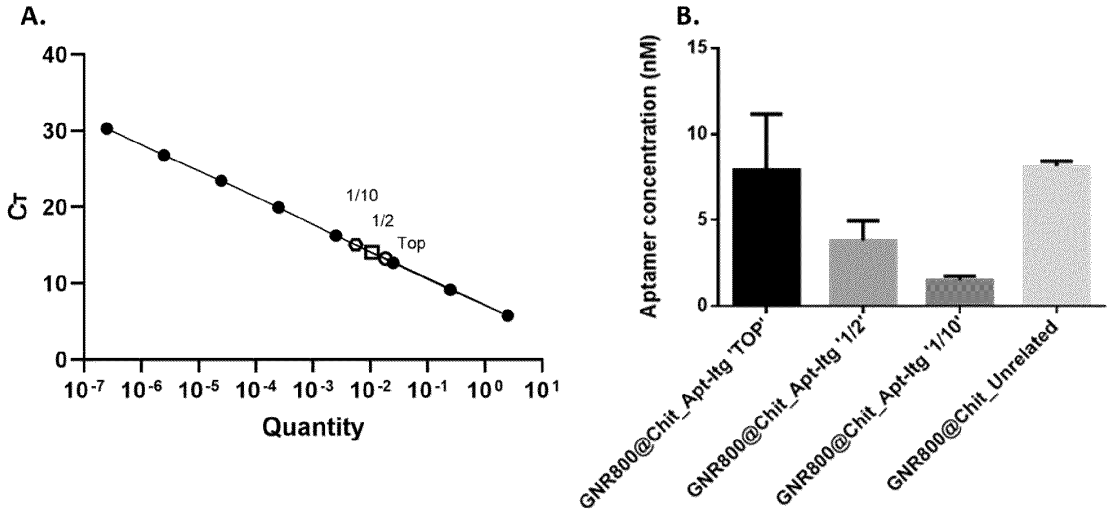

A.
Ct
40
30
20
10
0
1/10
1/2
Top
10-7 10-6 10-5 10-4 10-3 10-2 10-1 100 101
Quantity
B.
Aptamer concentration (nM)
15
10
5
0
GNR800@Chit_Apt-Itg 'TOP'
GNR800@Chit_Apt-Itg '1/2'
GNR800@Chit_Apt-Itg '1/10'
GNR800@Chit_Unrelated

Fig. 8

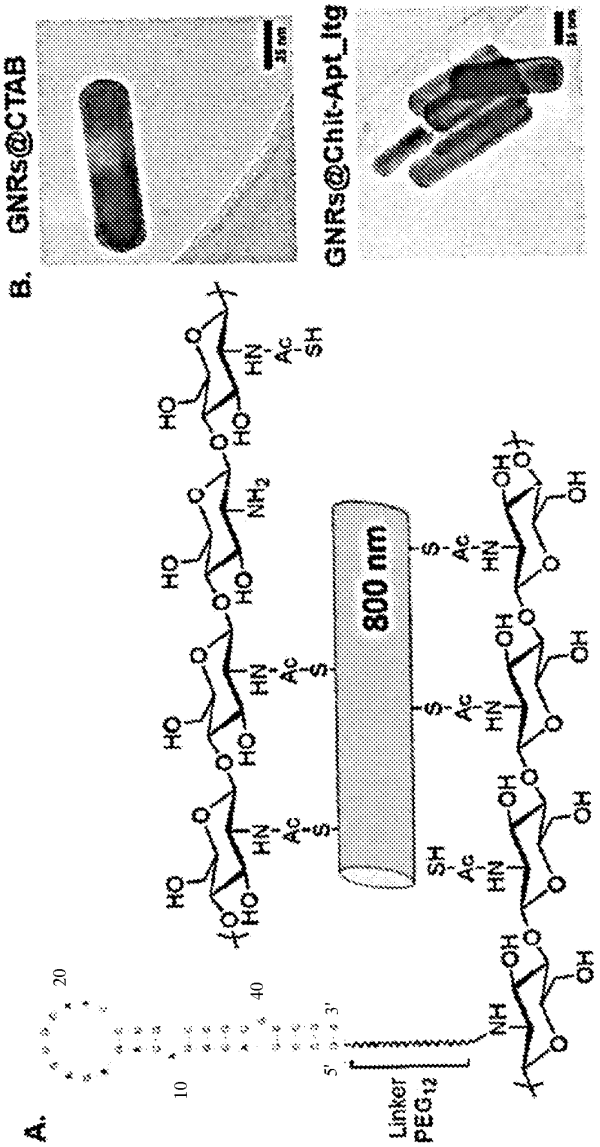


Fig. 9 (1/2)

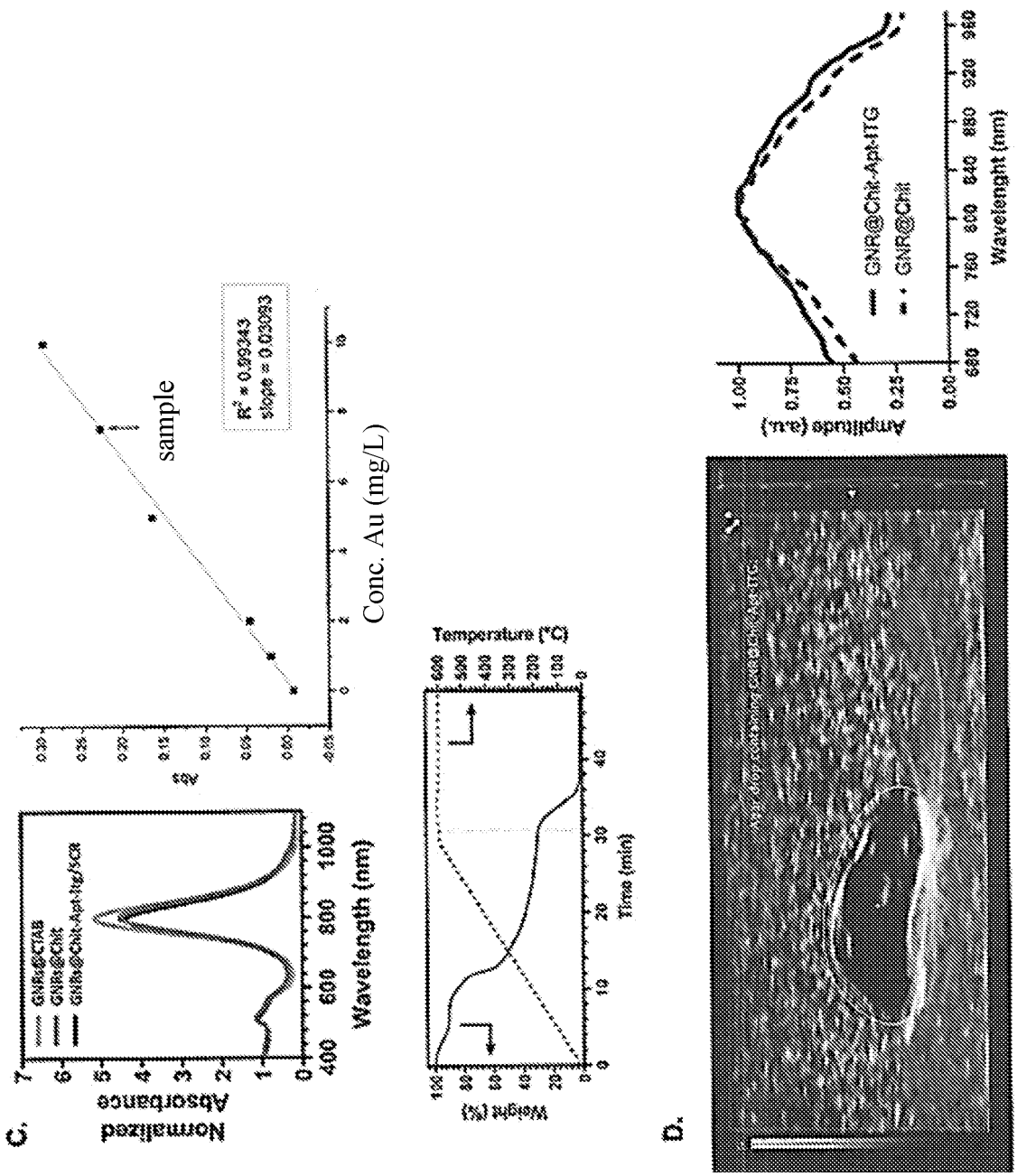

C.
Normalized Absorbance
Wavelength (nm)
GNR@CTAB
GNR@Chit
GNR@Chit-Apt-Hg/SCR
ΔS
sample
Conc. Au (mg/L)
R² = 0.99343
slope = 0.03093
Temperature (°C)
Weight (%)
Time (min)
D.
GNR@Chit-Apt-HTG
GNR@Chit
Amplitude (a.u.)
Wavelenght (nm)

Fig. 9 (2/2)

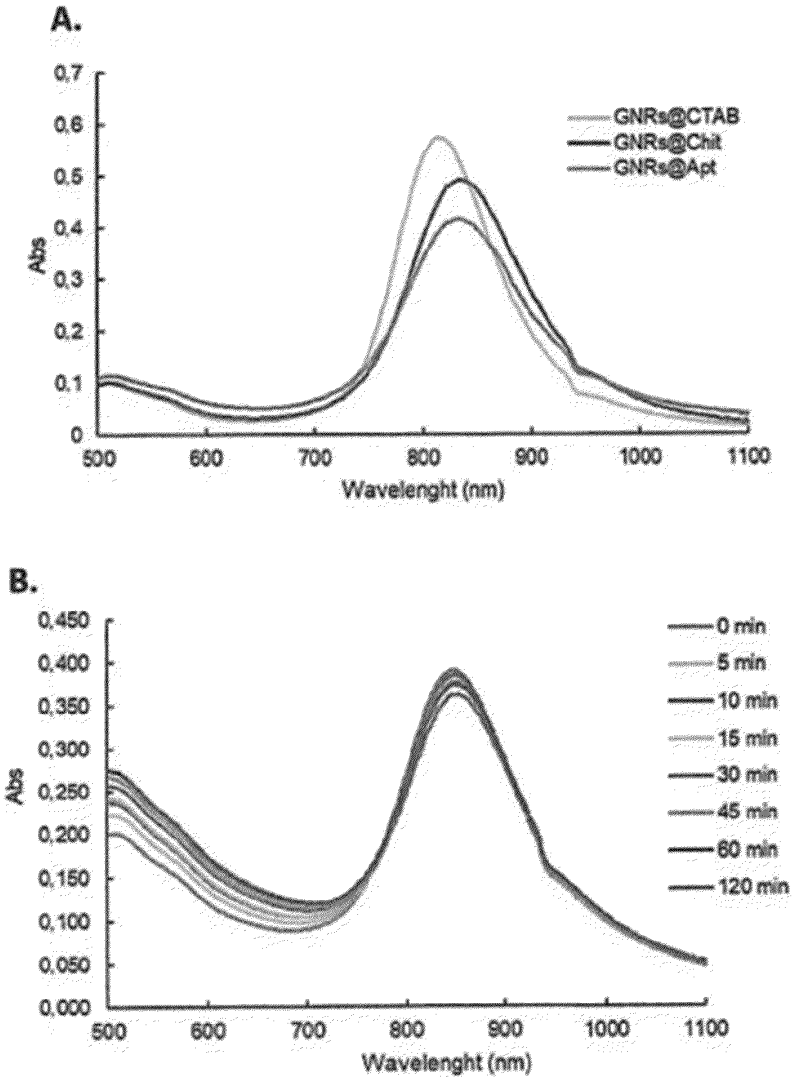

A.
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
Abs
500
600
700
800
900
1000
1100
Wavelenght (nm)
GNRs@CTAB
GNRs@Chit
GNRs@Apt
B.
0,450
0,400
0,350
0,300
0,250
0,200
0,150
0,100
0,050
0,000
Abs
500
600
700
800
900
1000
1100
Wavelenght (nm)
0 min
5 min
10 min
15 min
30 min
45 min
60 min
120 min

Fig. 10

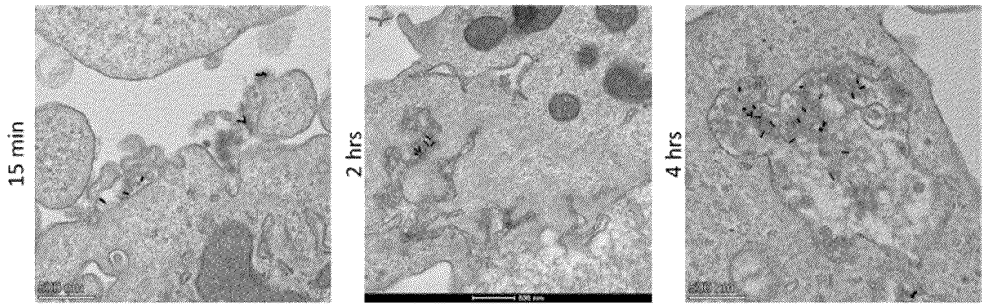


Fig. 11

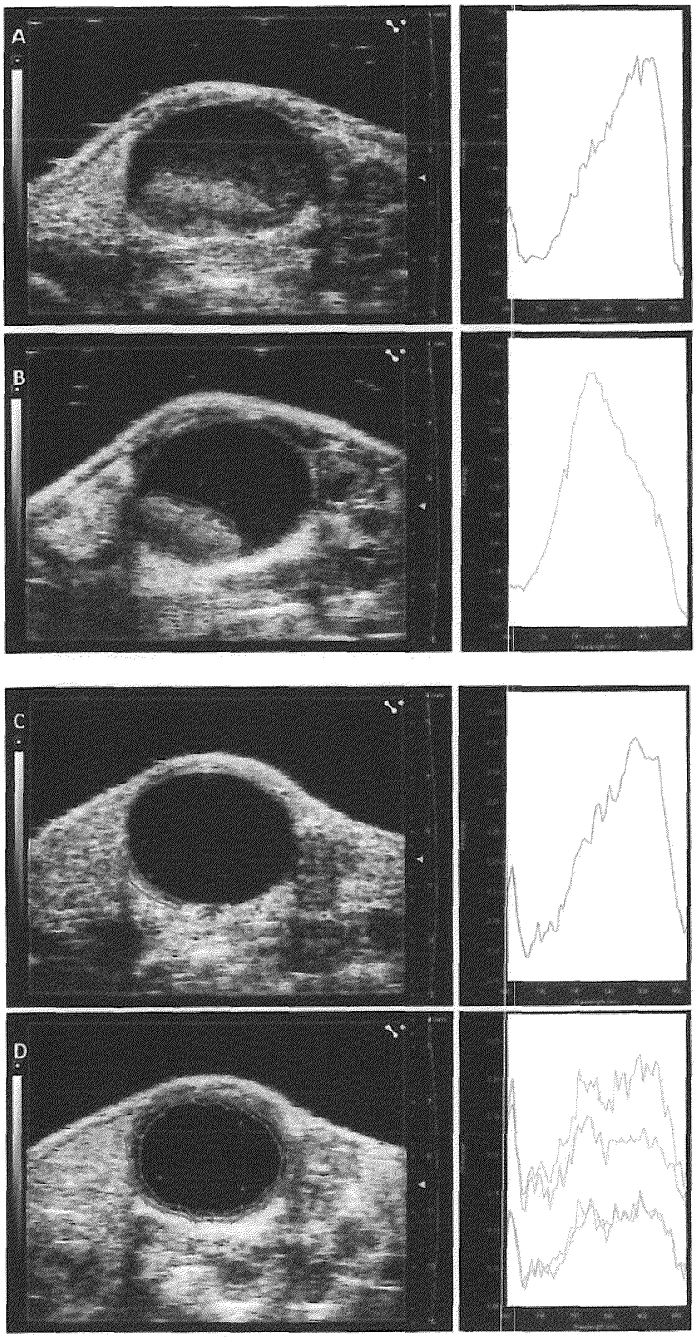


Fig. 12

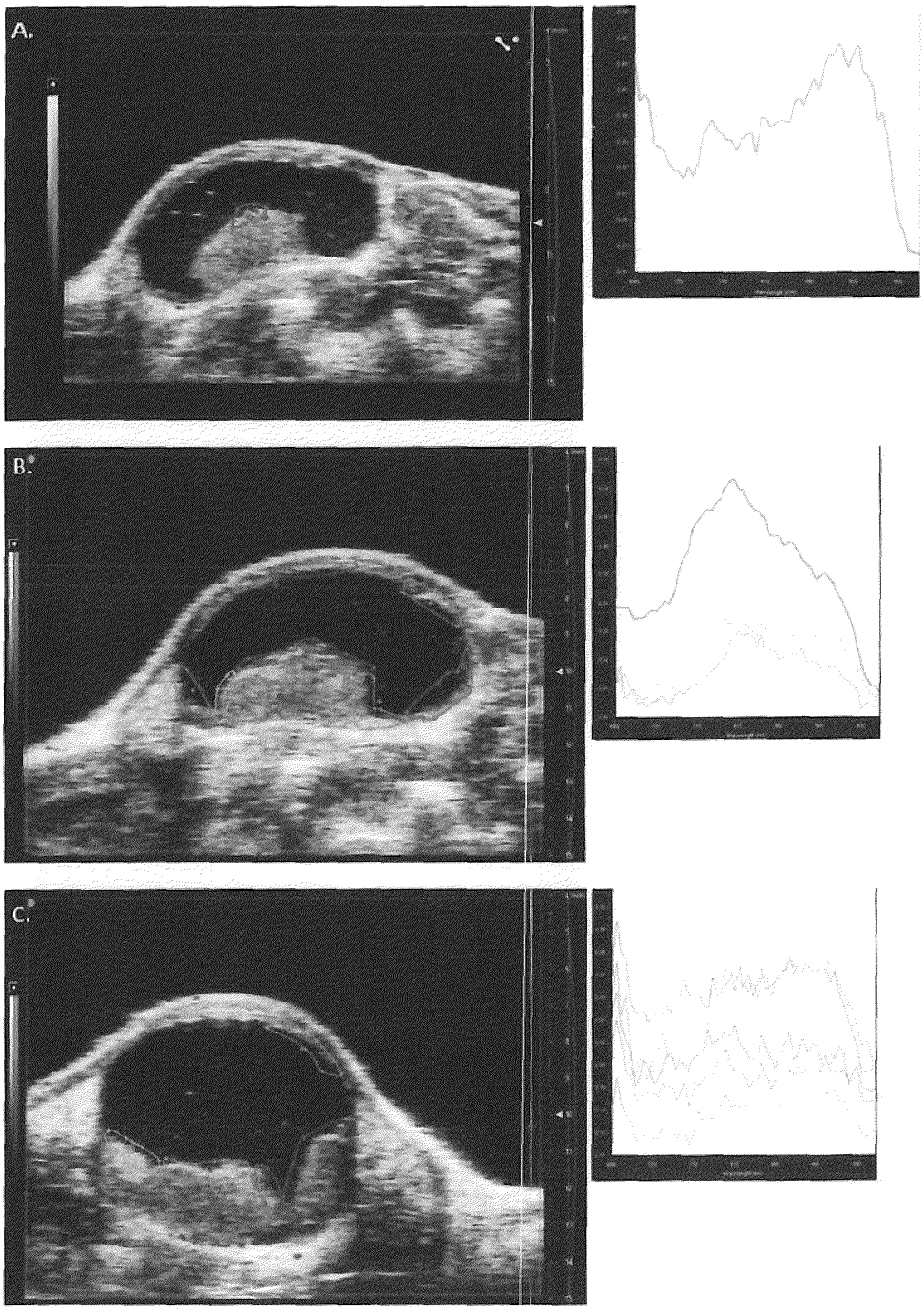


Fig. 13

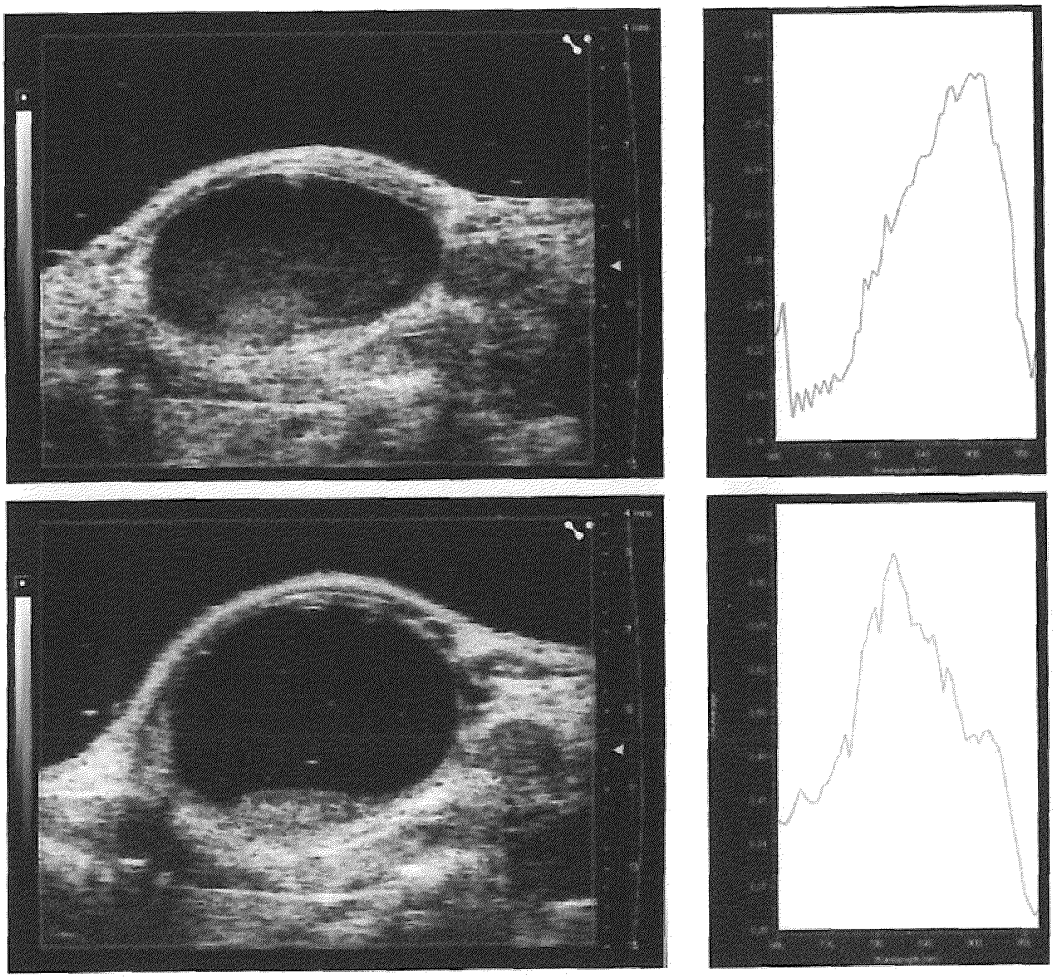


Fig. 14

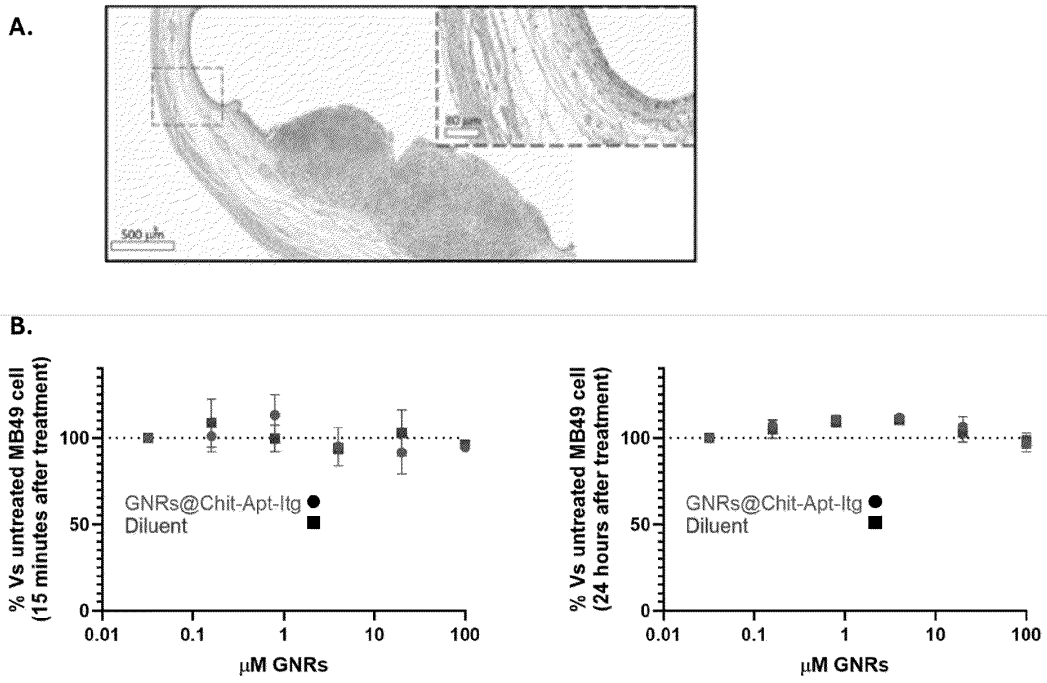

A.
500 µm
B.
% Vs untreated MB49 cell (15 minutes after treatment)
100
50
0
GNRs@Chit-Apt-Itg
Diluent
0.01
0.1
1
10
100
µM GNRs
% Vs untreated MB49 cell (24 hours after treatment)
100
50
0
GNRs@Chit-Apt-Itg
Diluent
0.01
0.1
1
10
100
µM GNRs

Fig. 15