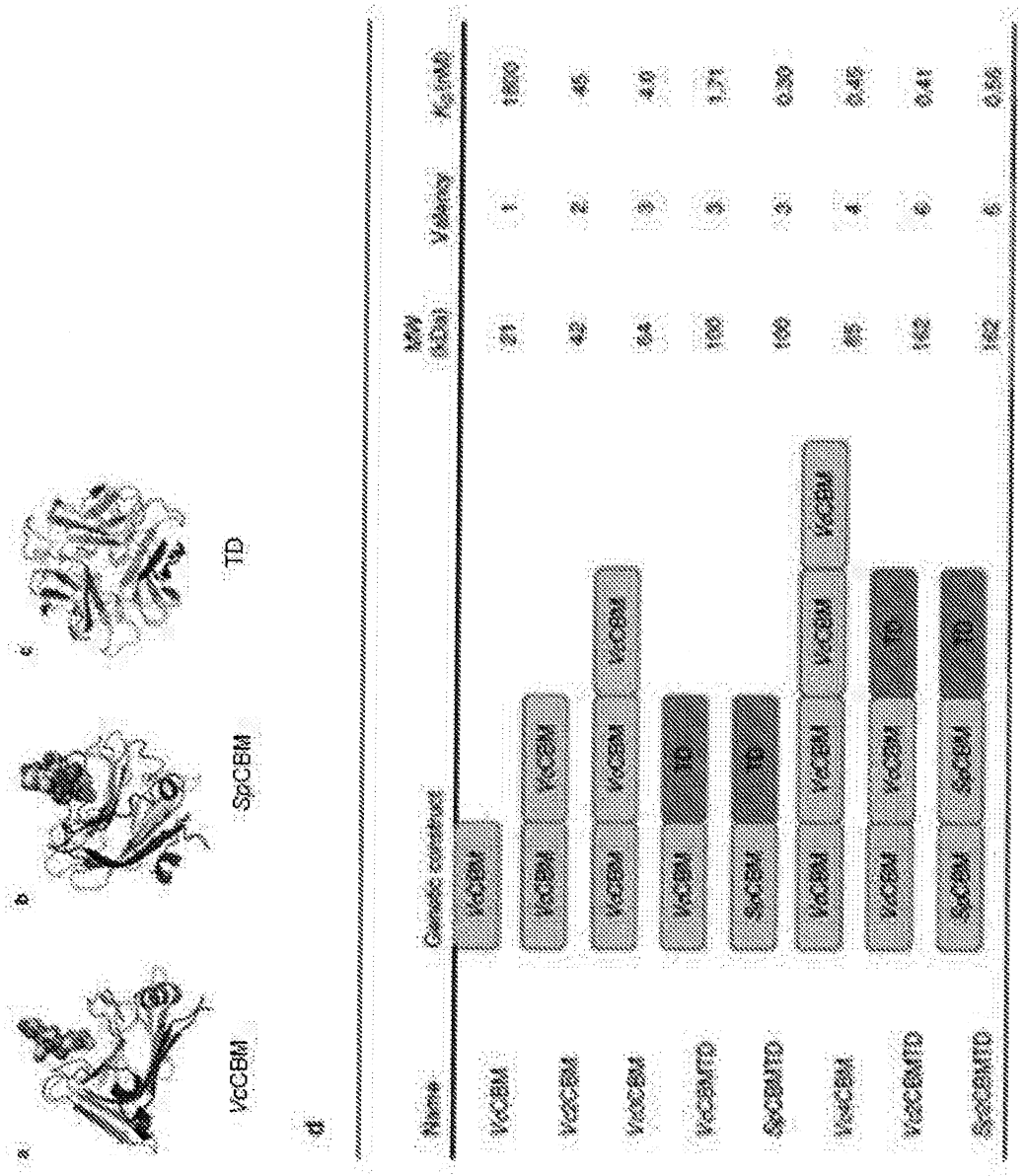

a
VcCBM
b
SpCBM
c
TD
d
Name
Genetic construct
MW (kDa)
Valency
Ka (nM)
VcCBM
61
1
1800
VcCBM
42
2
46
VcCBM
64
3
4.6
VcCBMTD
100
3
1.71
SpCBMTD
100
3
0.30
VcCBM
65
4
0.46
VcCBMTD
102
4
0.41
SpCBMTD
102
4
0.56

Figure 1



Figure 2

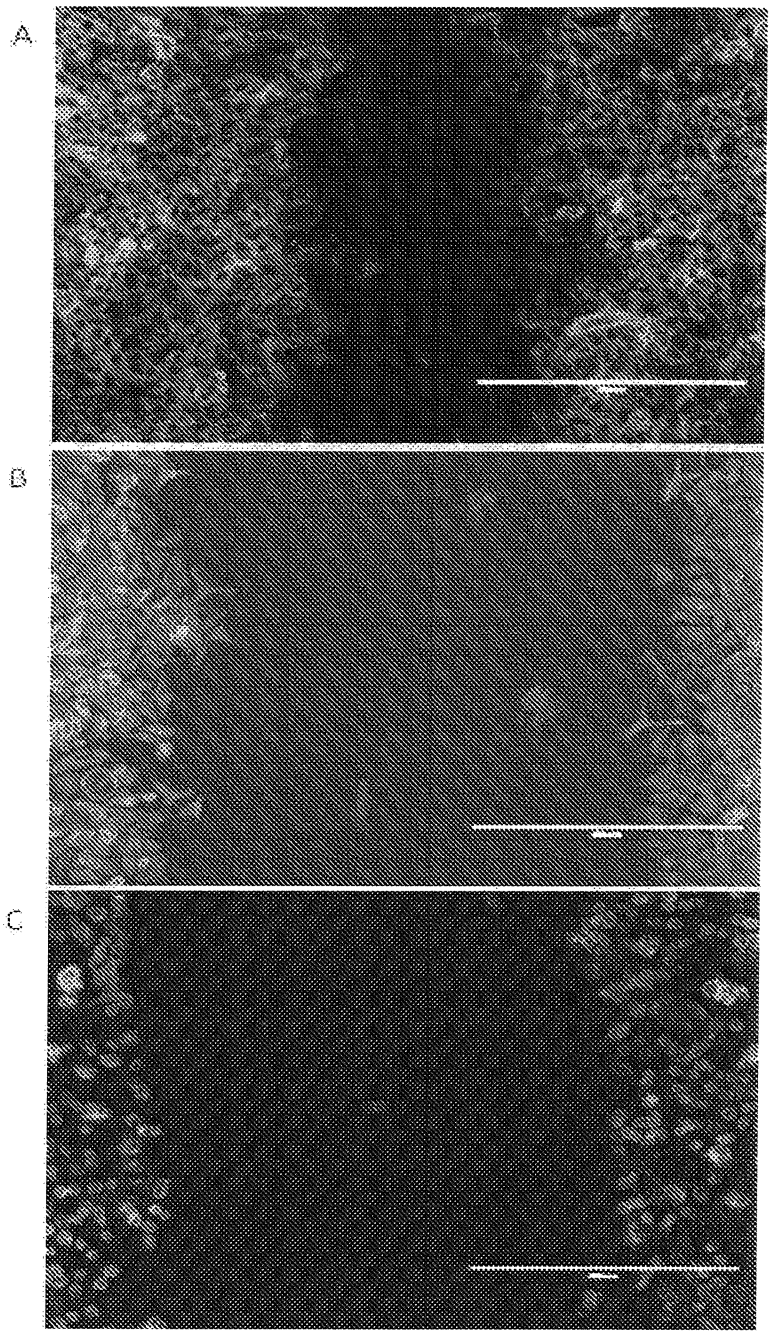


Figure 3

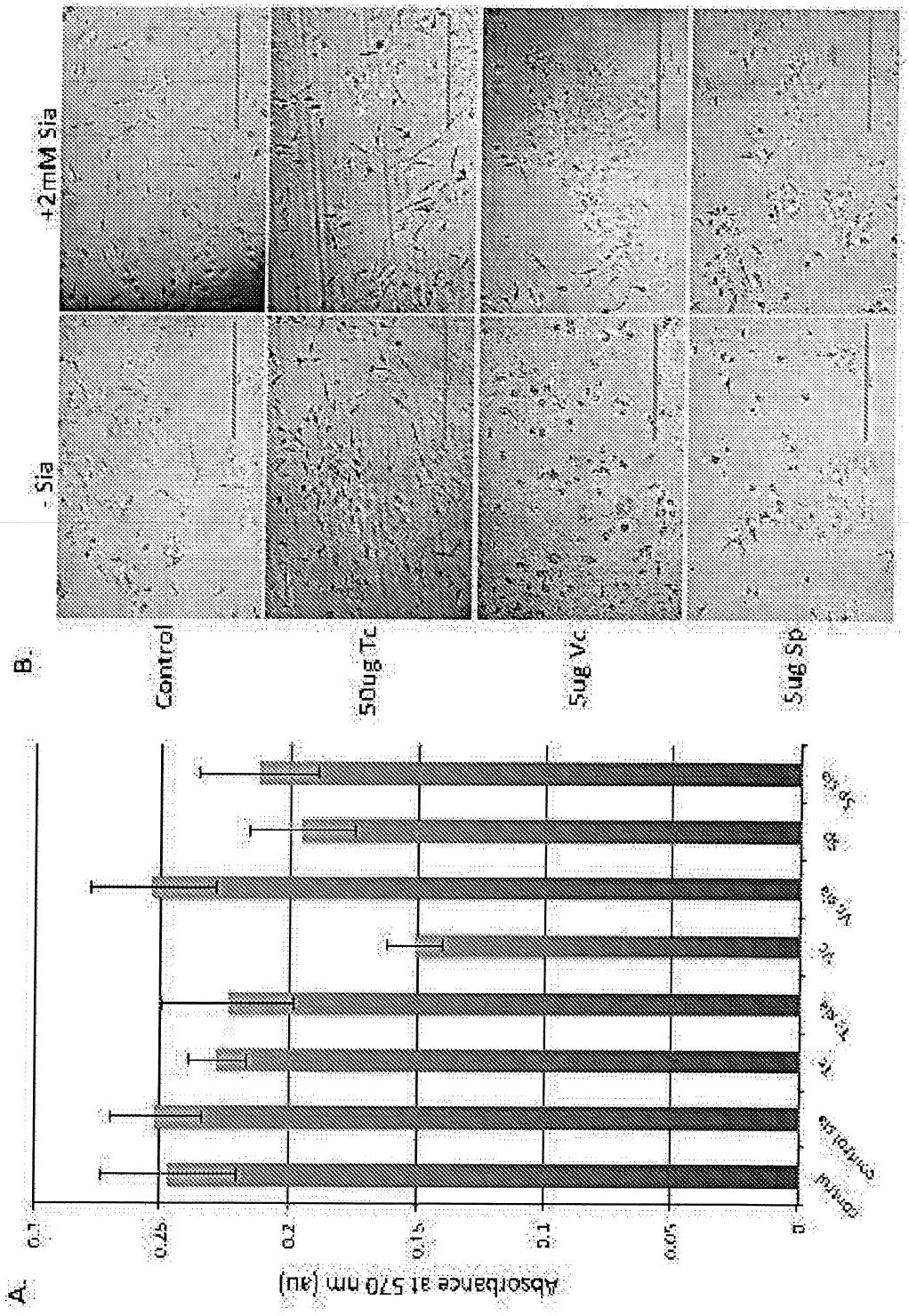

A.
Absorbance at 570 nm (au)
0.3
0.25
0.2
0.15
0.1
0.05
0
control
control+Sia
Tc
Tc+Sia
Vc
Vc+Sia
Sp
Sp+Sia
B.
- Sia
+2mM Sia
Control
50ug Tc
Sug Vc
Sug Sp

Figure 4

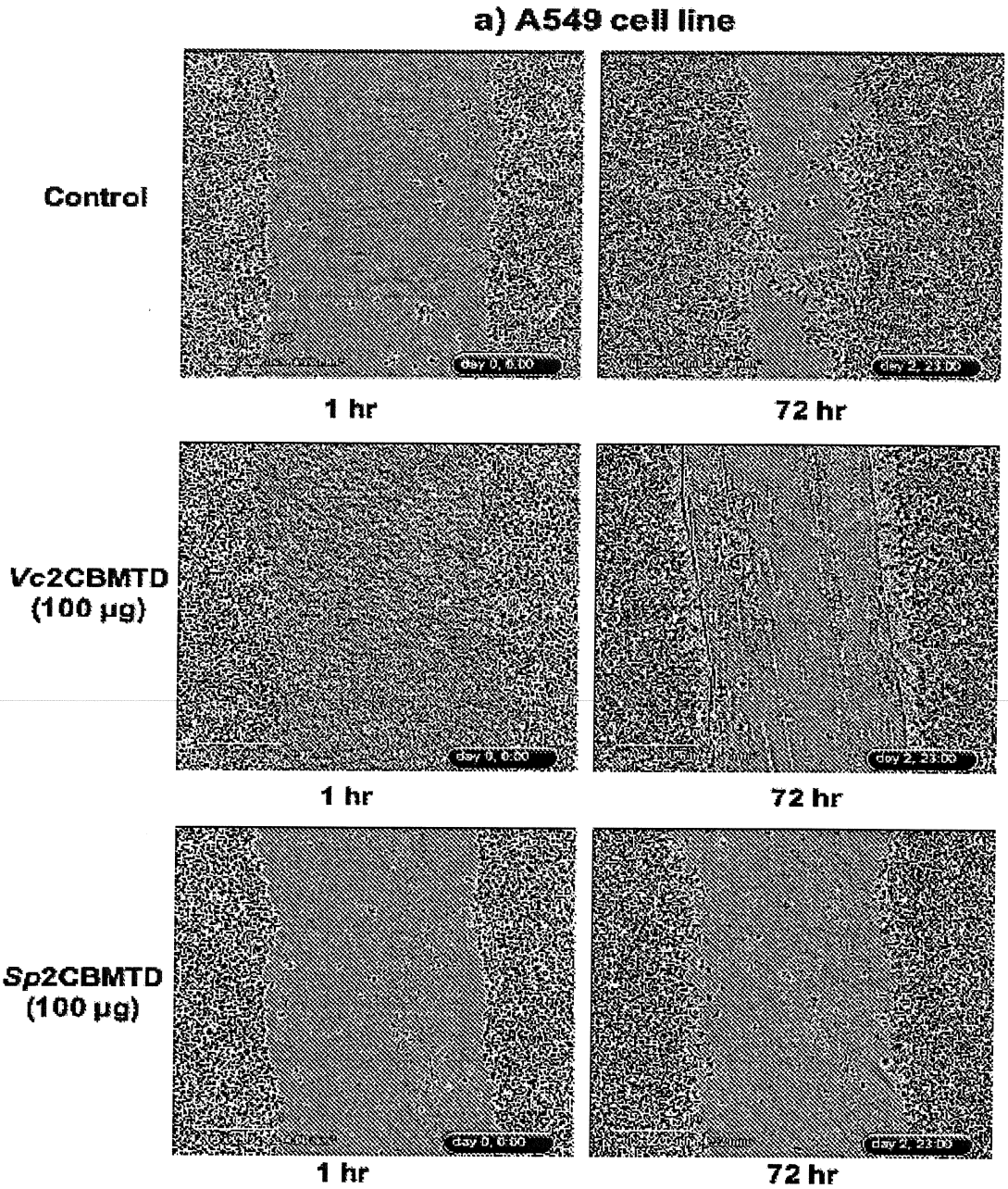

a) A549 cell line
Control
1 hr
72 hr
Vc2CBMTD
(100 µg)
1 hr
72 hr
Sp2CBMTD
(100 µg)
1 hr
72 hr

Figure 5 A

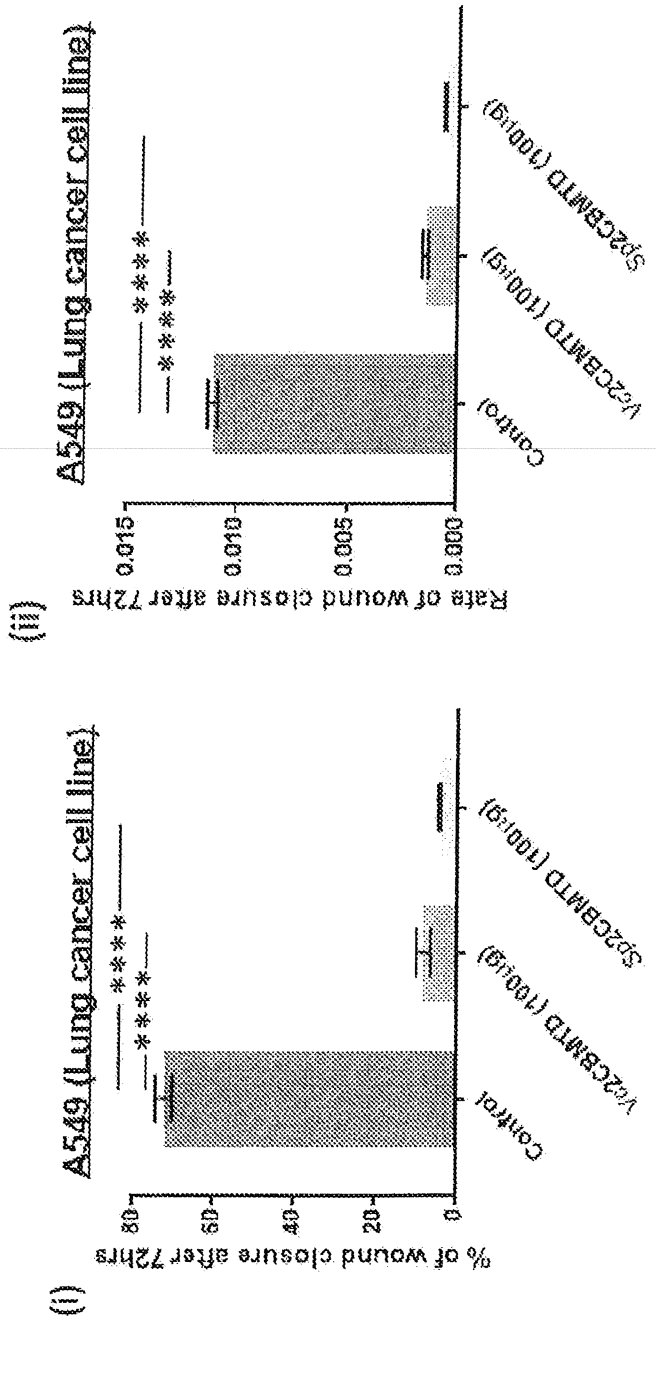

(i)
A549 (Lung cancer cell line)
% of wound closure after 72hrs
0
20
40
60
80
****
****
****
Control
V2CBMTD (100ng)
Sp2CBMTD (100ng)
(ii)
A549 (Lung cancer cell line)
Rate of wound closure after 72hrs
0.000
0.005
0.010
0.015
****
****
****
Control
V2CBMTD (100ng)
Sp2CBMTD (100ng)

Figure 5B

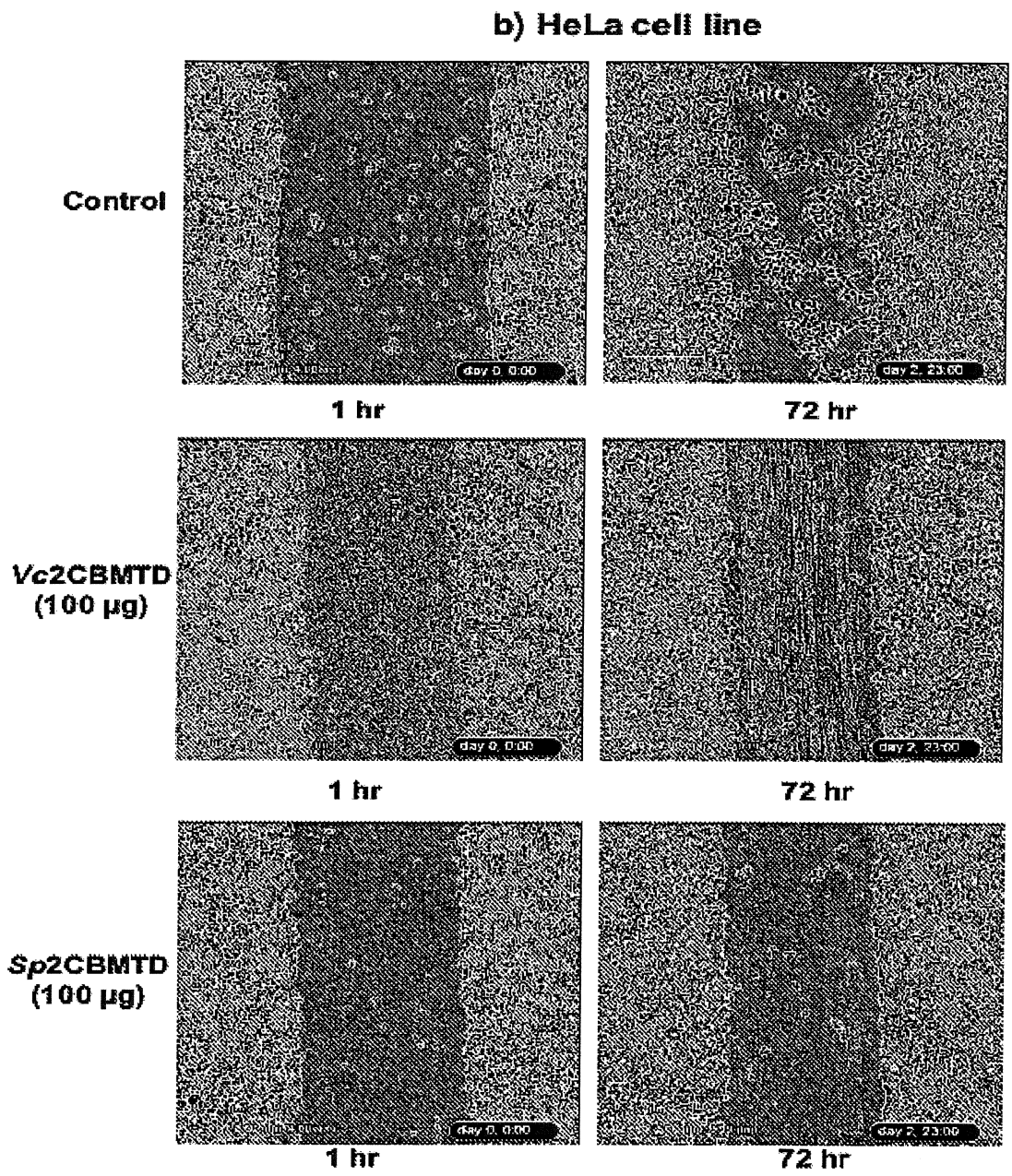

b) HeLa cell line
Control
1 hr
72 hr
Vc2CBMTD
(100 µg)
1 hr
72 hr
Sp2CBMTD
(100 µg)
1 hr
72 hr

Figure 6A

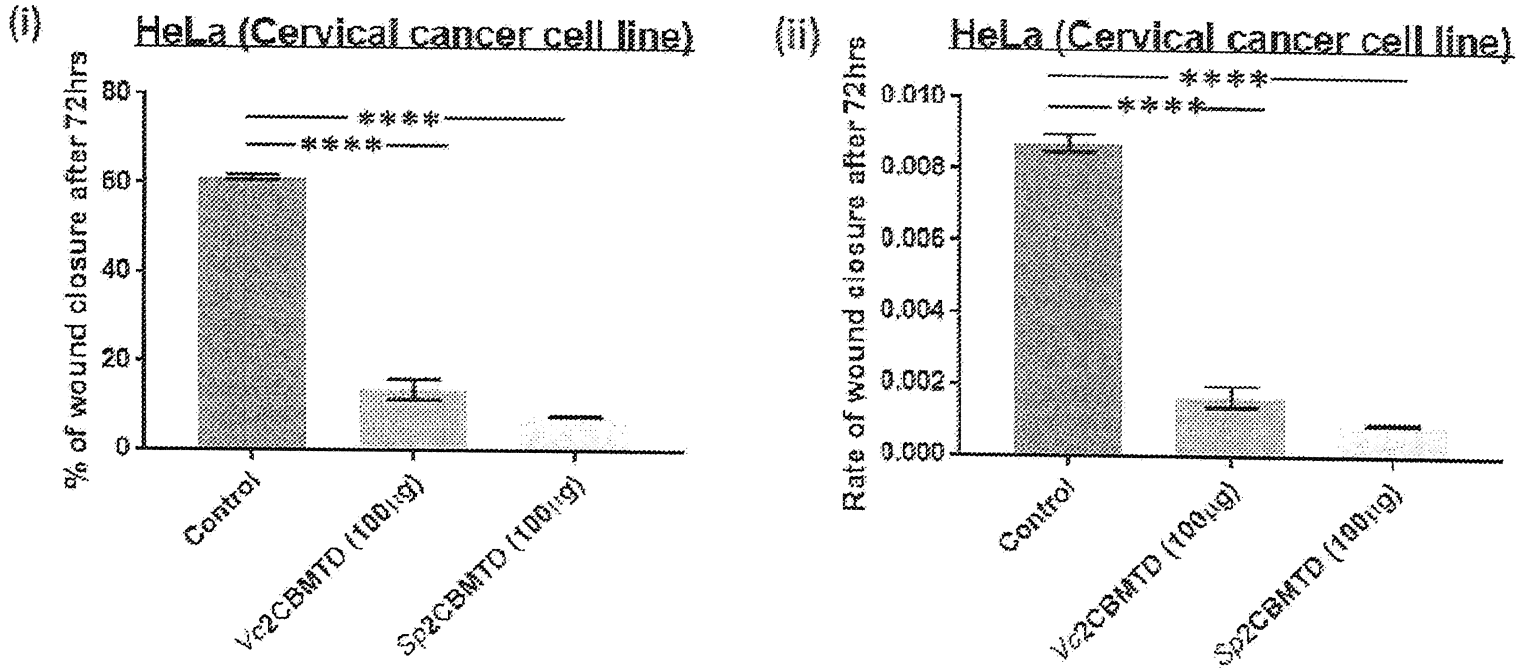
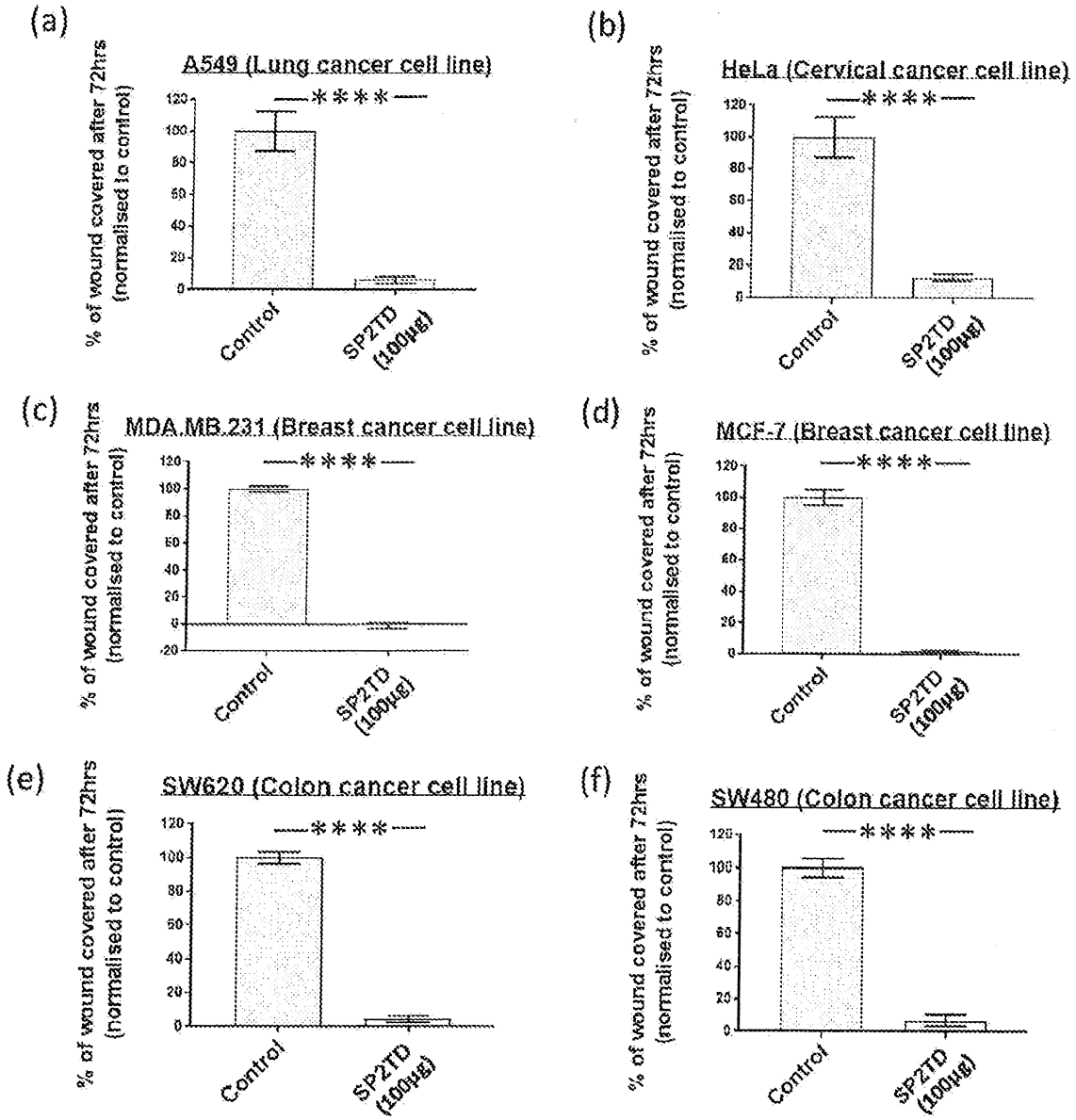

(i)
HeLa (Cervical cancer cell line)
% of wound closure after 72hrs
80
60
40
20
0
****
****
Control
Vc2CBMTD (100ng)
Sp2CBMTD (100ng)
(ii)
HeLa (Cervical cancer cell line)
Rate of wound closure after 72hrs
0.010
0.008
0.006
0.004
0.002
0.000
****
****
Control
Vc2CBMTD (100ng)
Sp2CBMTD (100ng)

Figure 6B


(a)
A549 (Lung cancer cell line)
% of wound covered after 72hrs (normalised to control)
****
Control
SP2TD (100µg)
(b)
HeLa (Cervical cancer cell line)
% of wound covered after 72hrs (normalised to control)
****
Control
SP2TD (100µg)
(c)
MDA.MB.231 (Breast cancer cell line)
% of wound covered after 72hrs (normalised to control)
****
Control
SP2TD (100µg)
(d)
MCF-7 (Breast cancer cell line)
% of wound covered after 72hrs (normalised to control)
****
Control
SP2TD (100µg)
(e)
SW620 (Colon cancer cell line)
% of wound covered after 72hrs (normalised to control)
****
Control
SP2TD (100µg)
(f)
SW480 (Colon cancer cell line)
% of wound covered after 72hrs (normalised to control)
****
Control
SP2TD (100µg)

Figures 7A-F

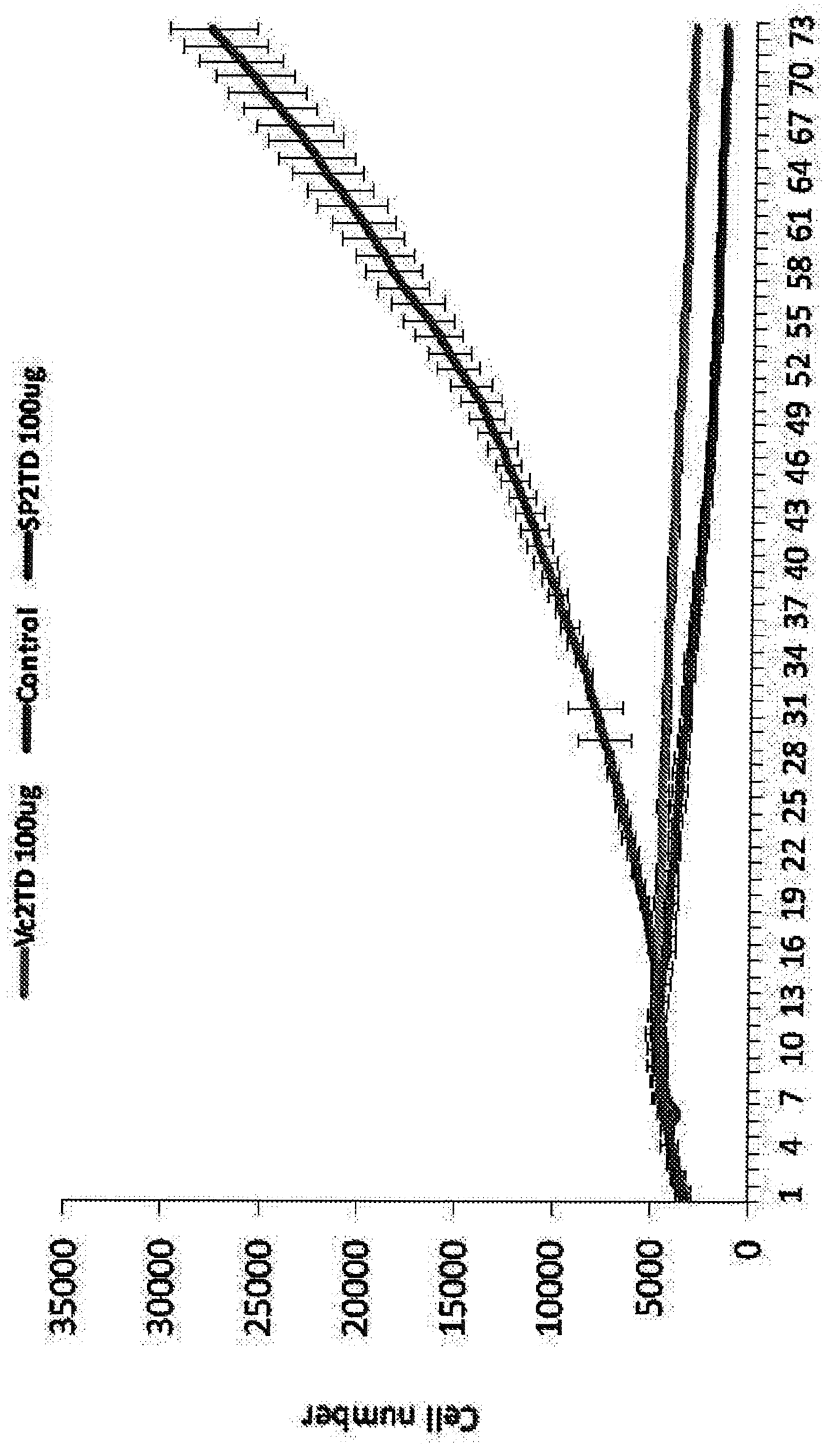

Vc2TD 100ug
Control
SP2TD 100ug
Cell number
35000
30000
25000
20000
15000
10000
5000
0
1 4 7 10 13 16 19 22 25 28 31 34 37 40 43 46 49 52 55 58 61 64 67 70 73
Time (h)

Figure 8

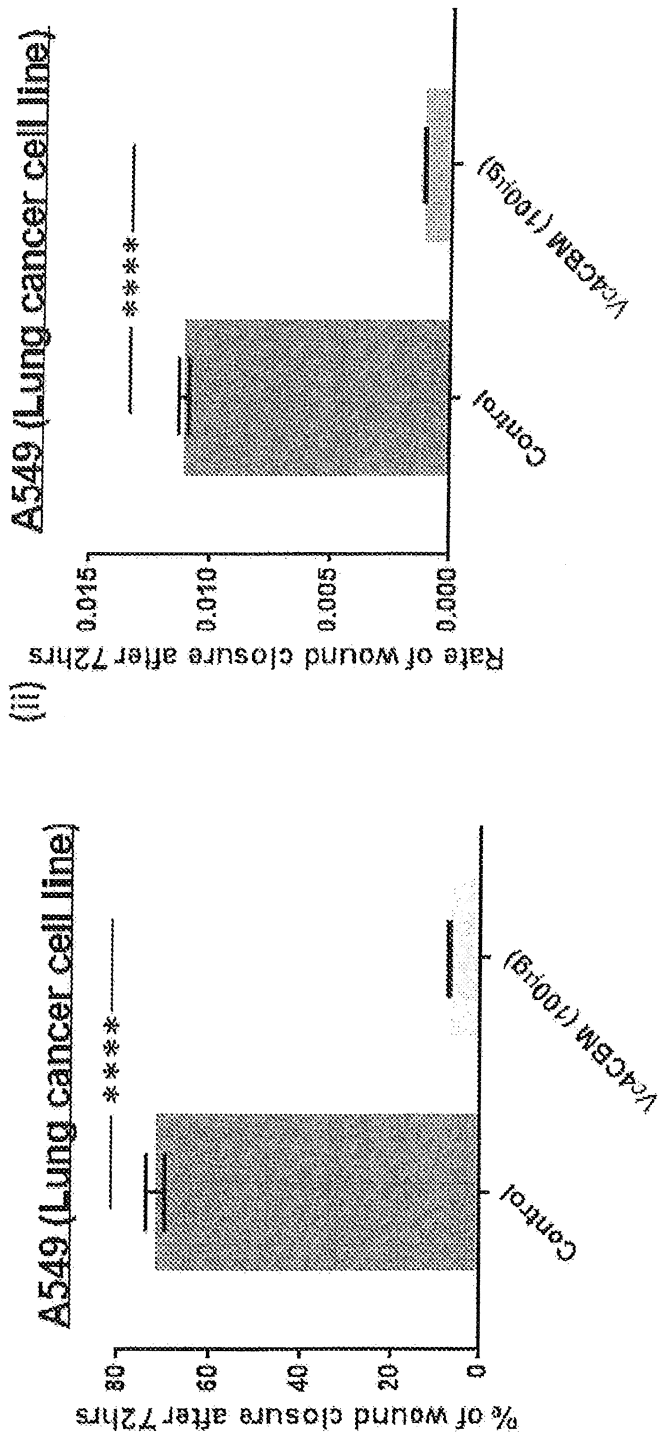

(i)
A549 (Lung cancer cell line)
% of wound closure after 72hrs
0
20
40
60
80
****
Control
Vc4CBM (100µg)
(ii)
A549 (Lung cancer cell line)
Rate of wound closure after 72hrs
0.000
0.005
0.010
0.015
****
Control
Vc4CBM (100µg)

Figure 9A

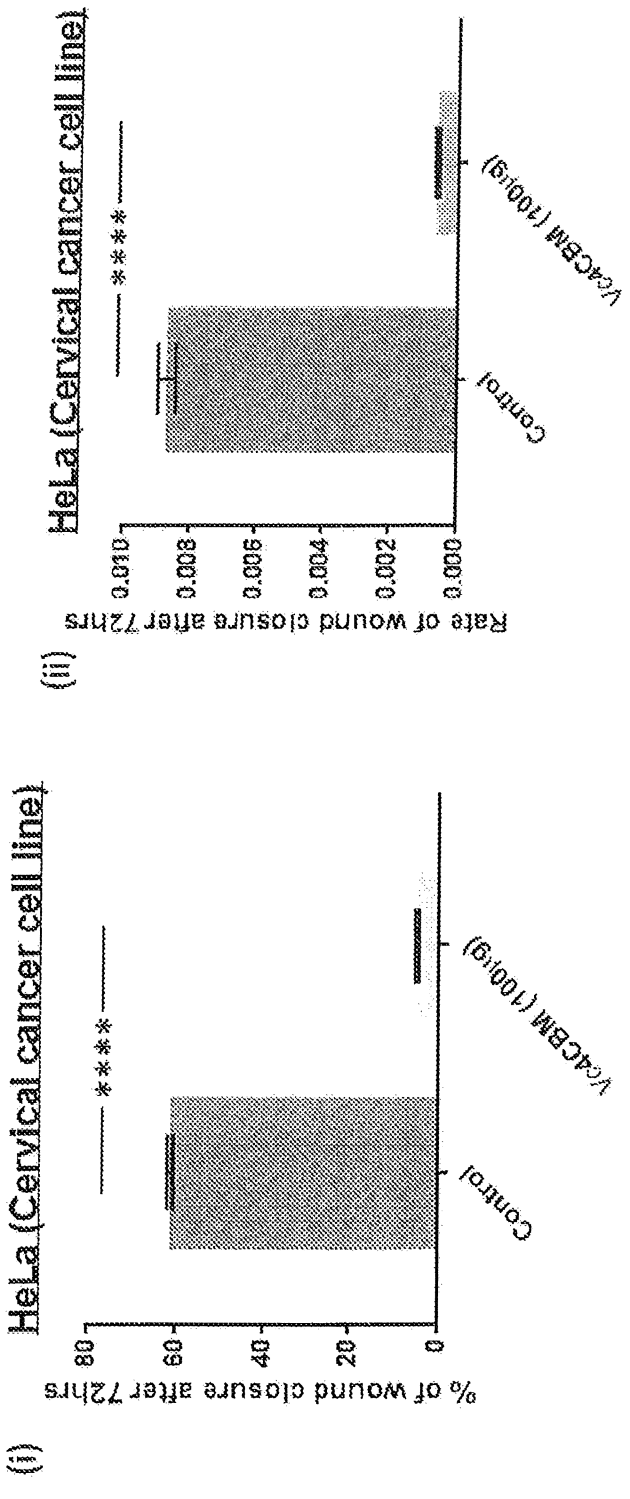

(i)
HeLa (Cervical cancer cell line)
% of wound closure after 72hrs
0
20
40
60
80
****
Control
VcACBM (100ng)
(ii)
HeLa (Cervical cancer cell line)
Rate of wound closure after 72hrs
0.000
0.002
0.004
0.006
0.008
0.010
****
Control
VcACBM (100ng)

Figure 9B

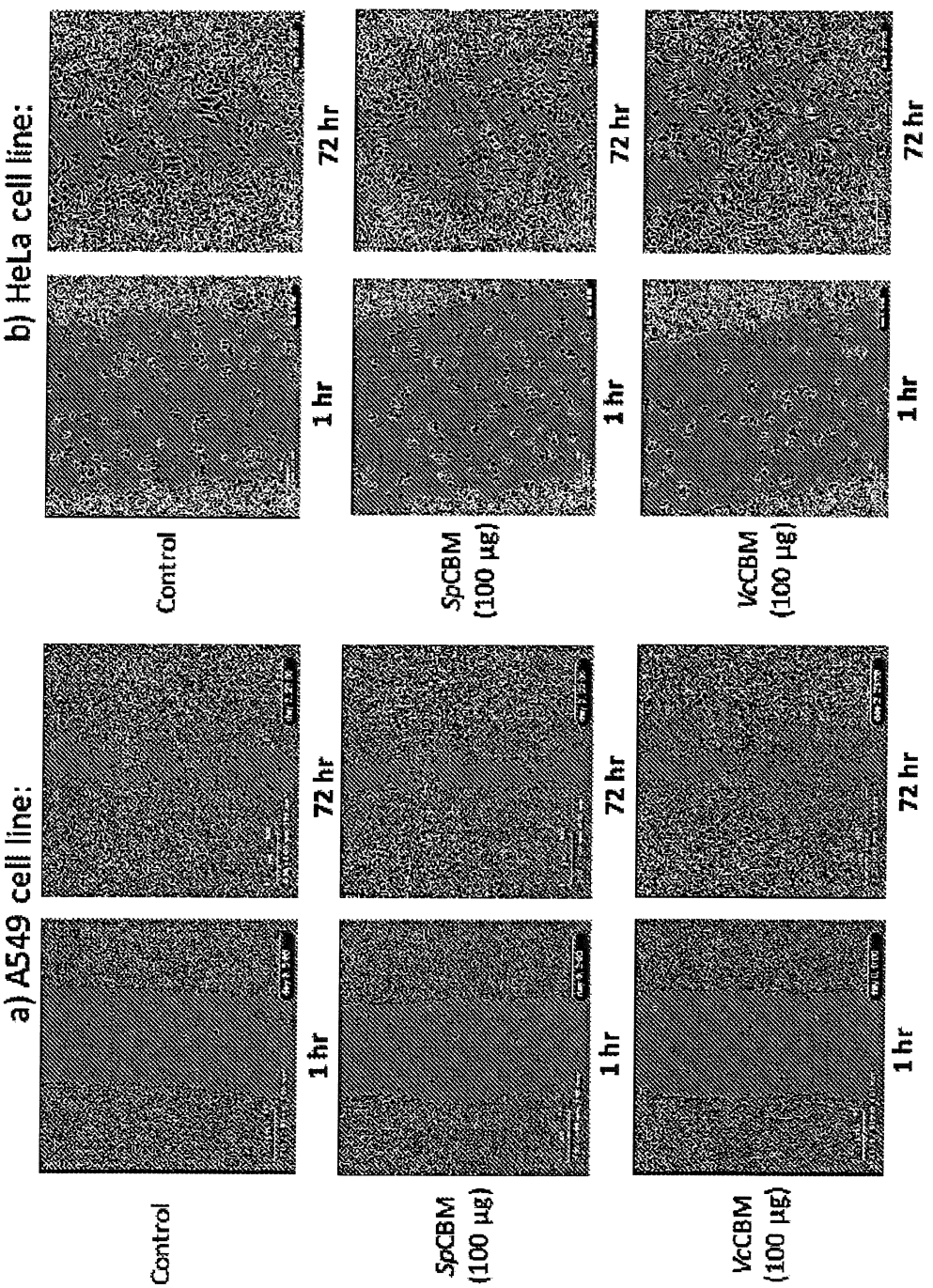

a) A549 cell line:
b) HeLa cell line:
Control
SpCBM (100 µg)
VcCBM (100 µg)
1 hr
72 hr

Figure 10A

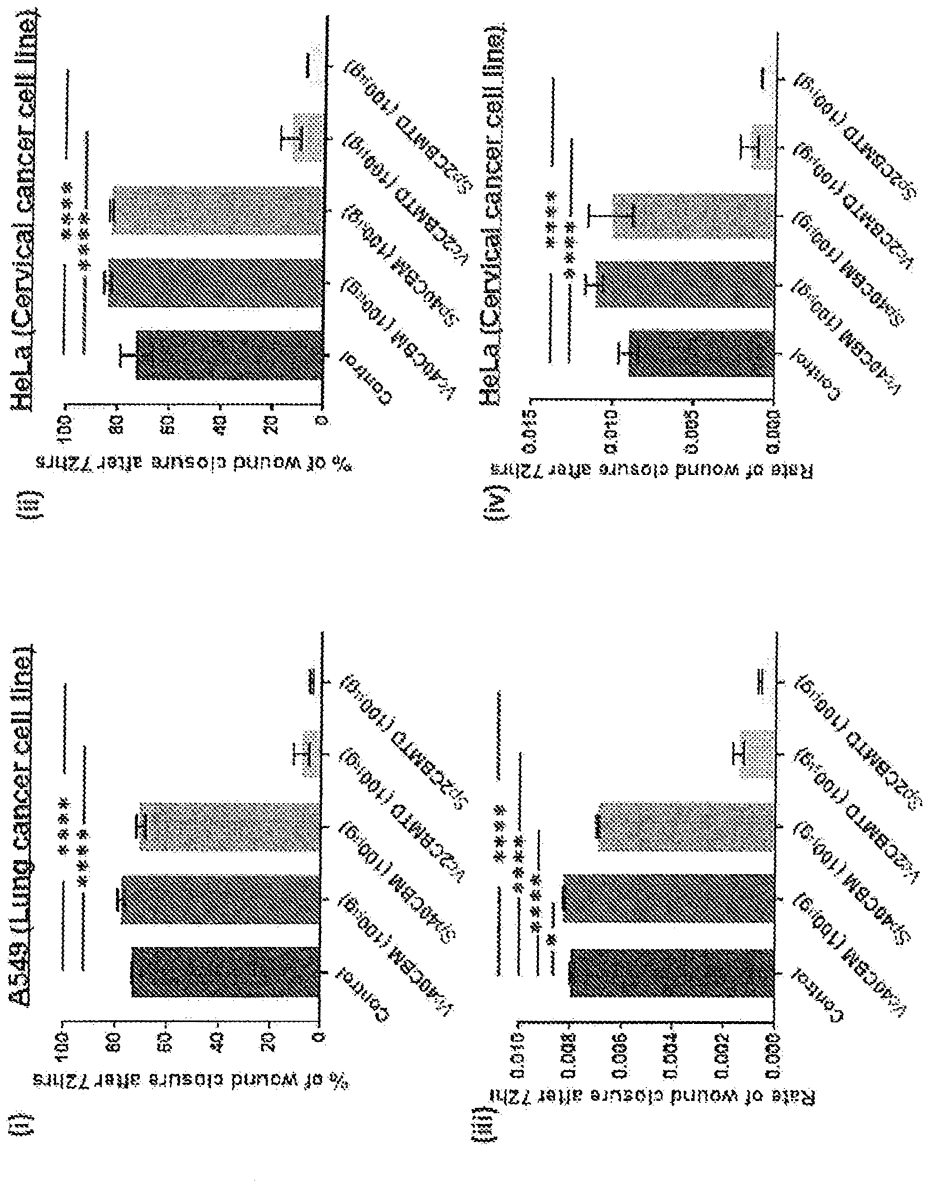

(i)
A549 (Lung cancer cell line)
% of wound closure after 72hrs
100
80
60
40
20
0
****
****
Control
V-4aCBM (100:g)
Sp4aCBM (100:g)
V-2CBMTD (100:g)
Sp2CBMTD (100:g)
(ii)
HeLa (Cervical cancer cell line)
% of wound closure after 72hrs
100
80
60
40
20
0
****
****
Control
V-4aCBM (100:g)
Sp4aCBM (100:g)
V-2CBMTD (100:g)
Sp2CBMTD (100:g)
(iii)
Rate of wound closure after 72hr
0.010
0.008
0.006
0.004
0.002
0.000
*
****
****
Control
V-4aCBM (100:g)
Sp4aCBM (100:g)
V-2CBMTD (100:g)
Sp2CBMTD (100:g)
(iv)
HeLa (Cervical cancer cell line)
Rate of wound closure after 72hrs
0.015
0.010
0.005
0.000
****
****
Control
V-4aCBM (100:g)
Sp4aCBM (100:g)
V-2CBMTD (100:g)
Sp2CBMTD (100:g)

Figure 10B

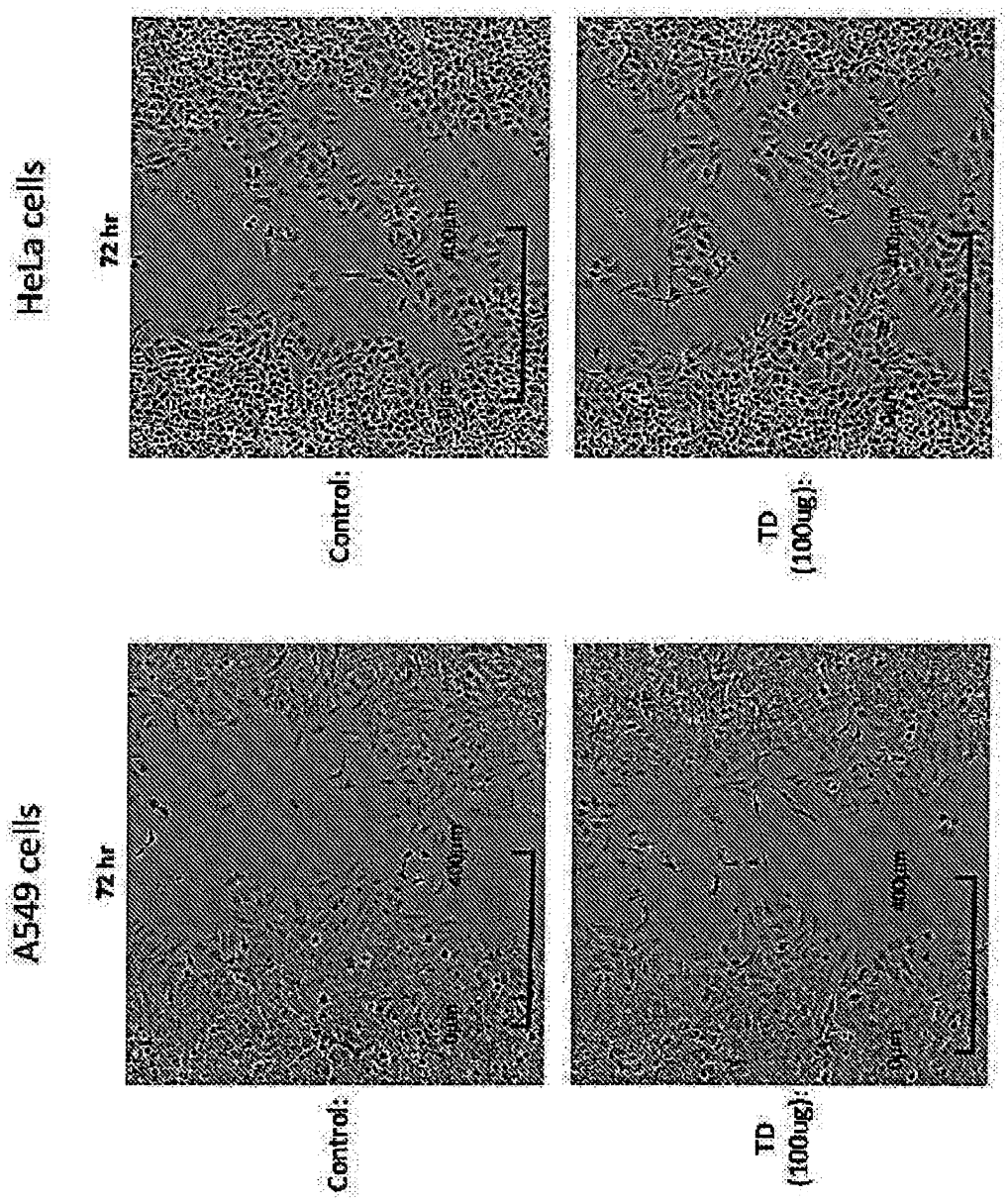

HeLa cells
72 hr
Control:
TD (100ug):
A549 cells
72 hr
Control:
TD (100ug):

Figure 11A

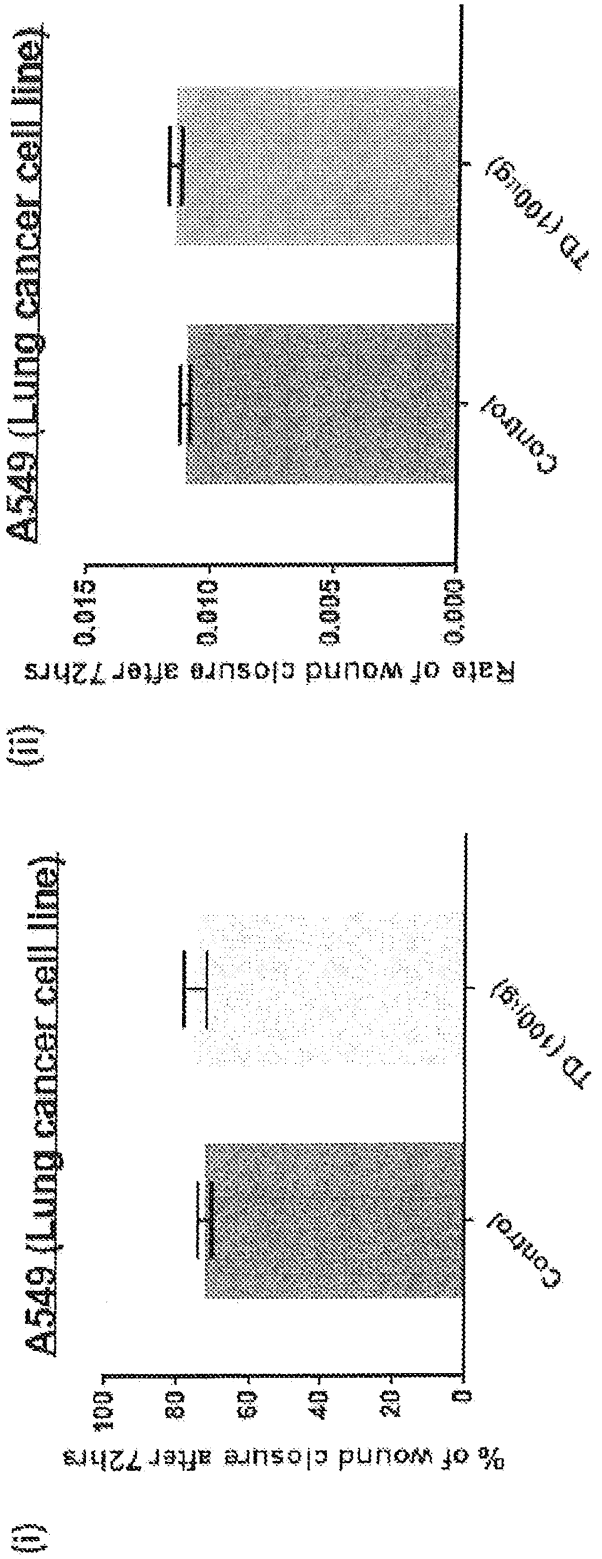

(i)
A549 (Lung cancer cell line)
% of wound closure after 72hrs
100
80
60
40
20
0
Control
TD (100ug)
(ii)
A549 (Lung cancer cell line)
Rate of wound closure after 72hrs
0.015
0.010
0.005
0.000
Control
TD (100ug)

Figure 11B

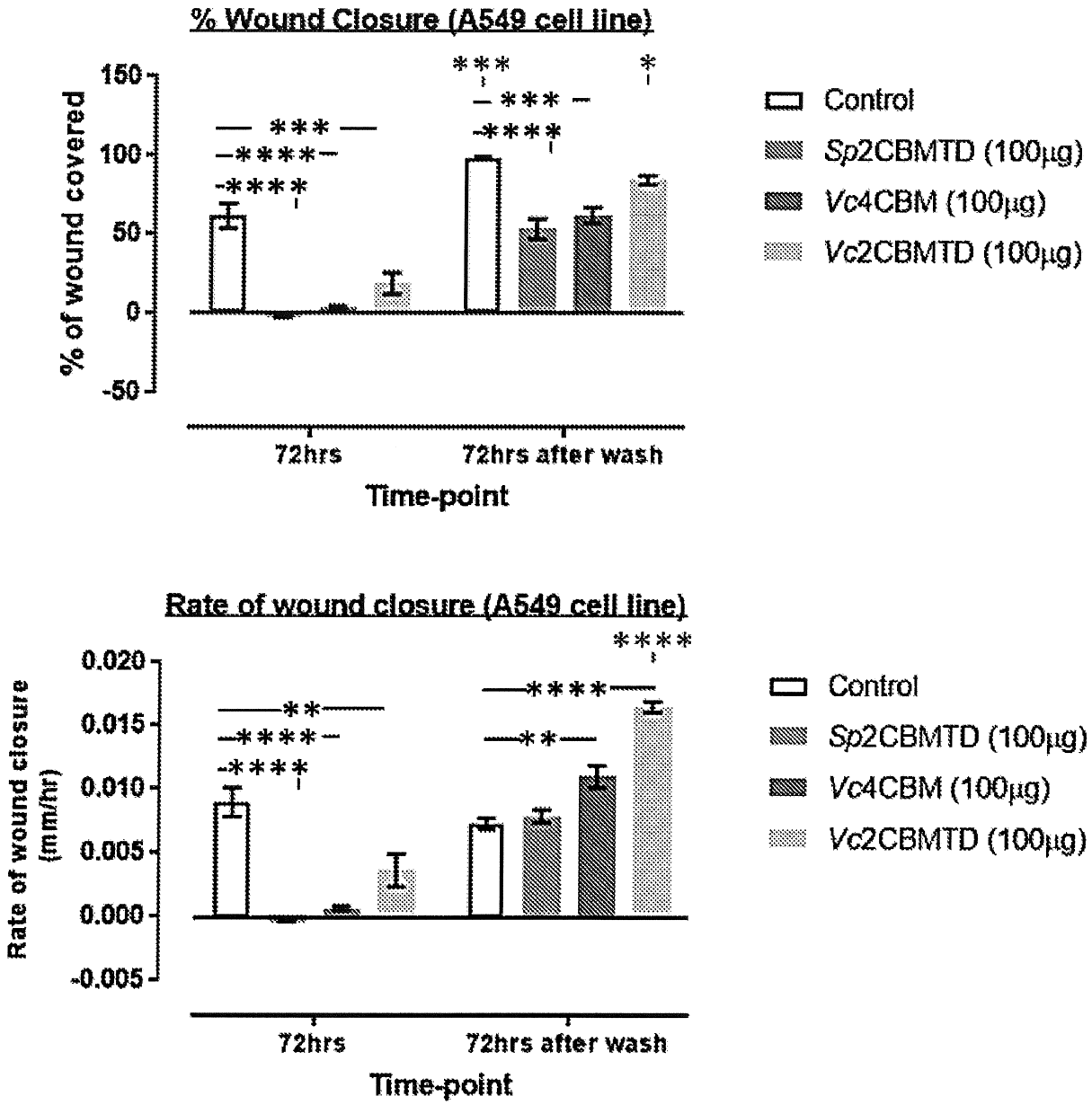

% Wound Closure (A549 cell line)
% of wound covered
150
100
50
0
-50
***
****
****
***
***
****
*
72hrs
72hrs after wash
Time-point
Control
Sp2CBMTD (100µg)
Vc4CBM (100µg)
Vc2CBMTD (100µg)
Rate of wound closure (A549 cell line)
Rate of wound closure (mm/hr)
0.020
0.015
0.010
0.005
0.000
-0.005
**
****
****
****
**
****
72hrs
72hrs after wash
Time-point
Control
Sp2CBMTD (100µg)
Vc4CBM (100µg)
Vc2CBMTD (100µg)

Figure 12

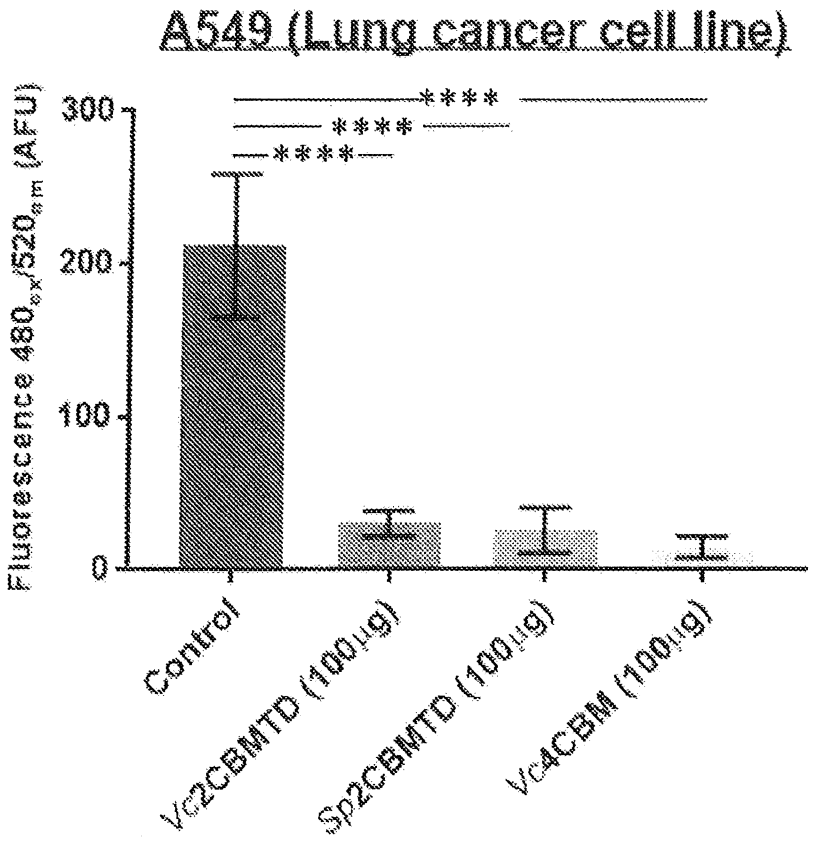
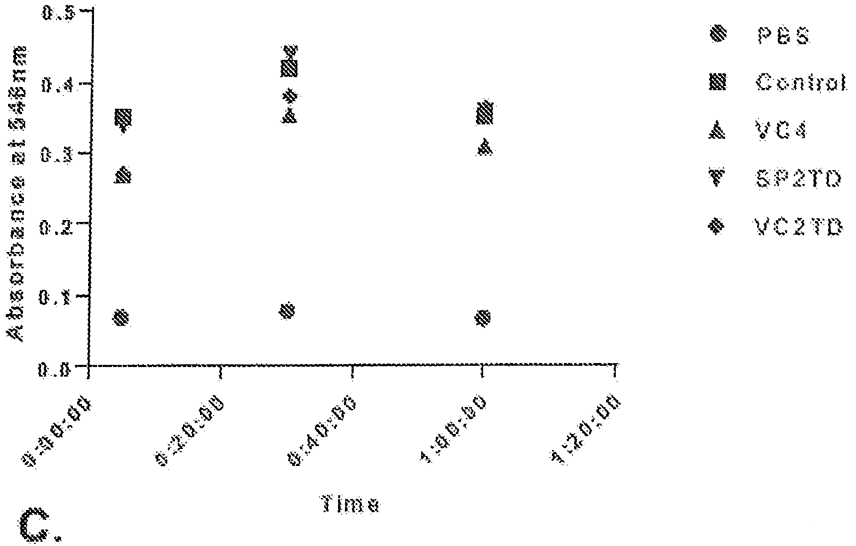
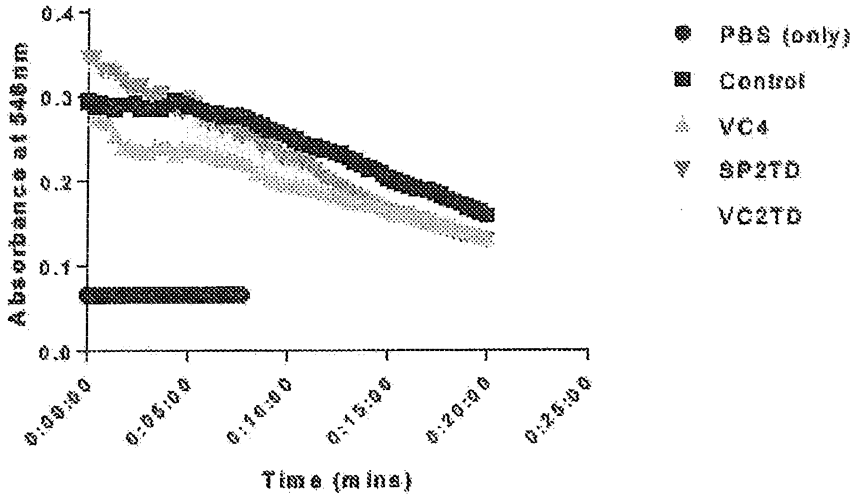

A549 (Lung cancer cell line)
Fluorescence 480ex/520em (AFU)
300
200
100
0
****
****
****
Control
Vc2CBMTD (100µg)
Sp2CBMTD (100µg)
Vc4CBM (100µg)

Figure 13

A.

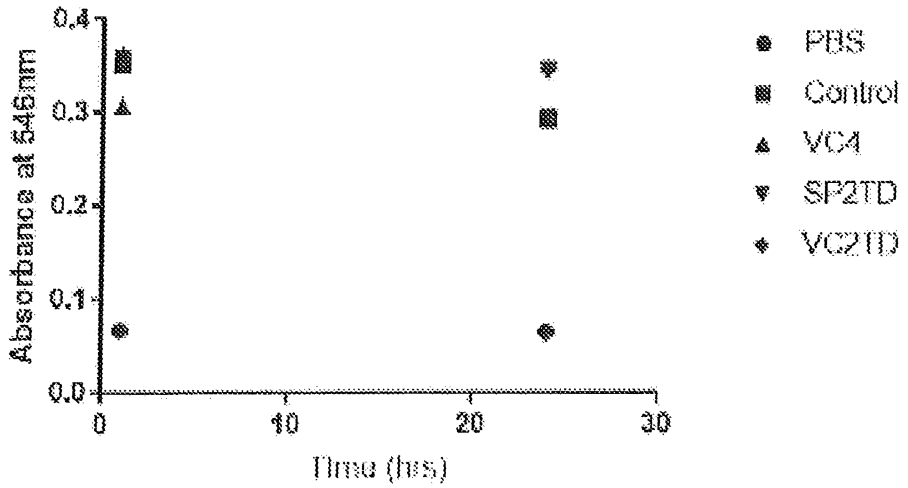


C.



Figures 14A & C

B.



D.

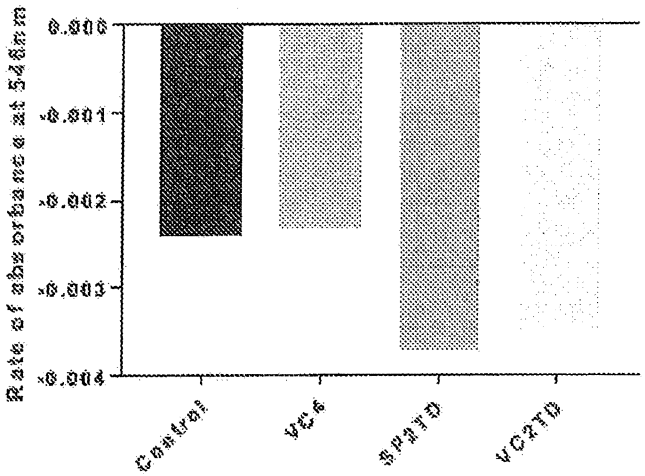


Figure 14 B & D

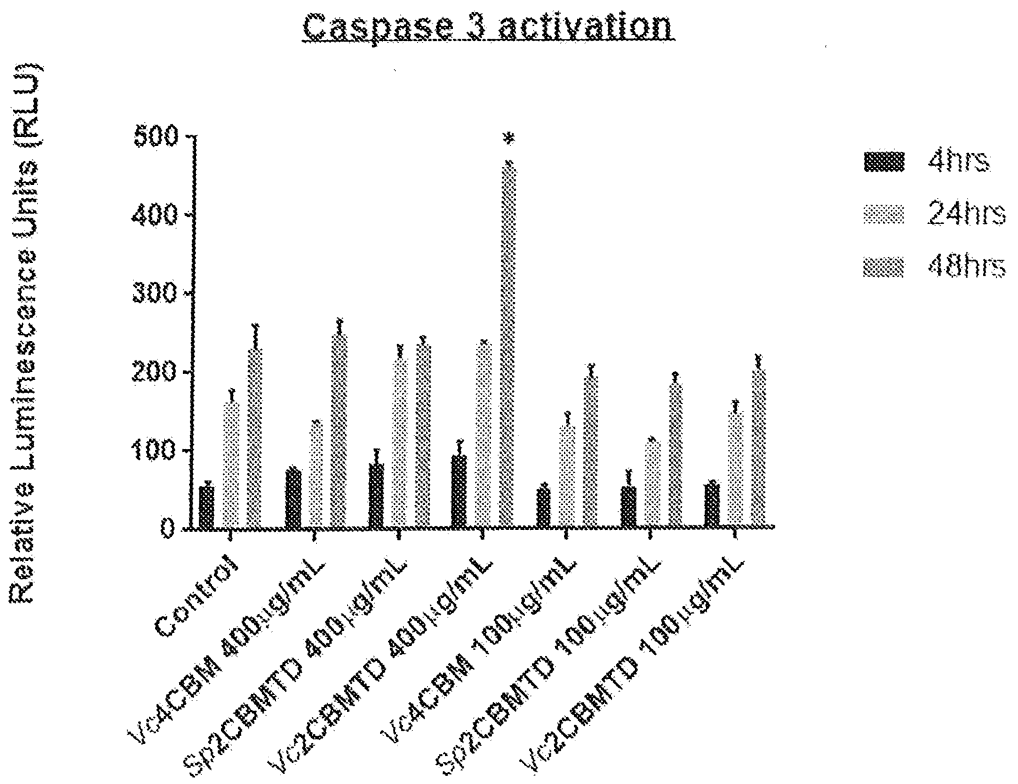

Caspase 3 activation
Relative Luminescence Units (RLU)
500
400
300
200
100
0
*
4hrs
24hrs
48hrs
Control
Vc4CBM 400µg/mL
Sp2CBMTD 400µg/mL
Vc2CBMTD 400µg/mL
Vc4CBM 100µg/mL
Sp2CBMTD 100µg/mL
Vc2CBMTD 100µg/mL

Figure 15

Cell viability

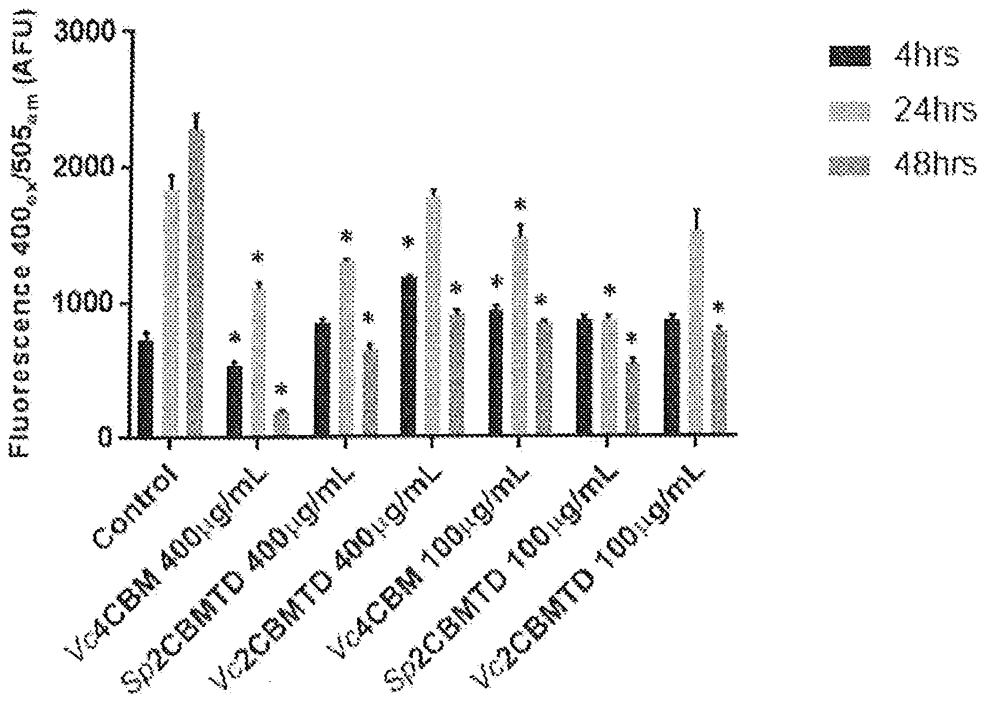


Figure 16

Cell cytotoxicity

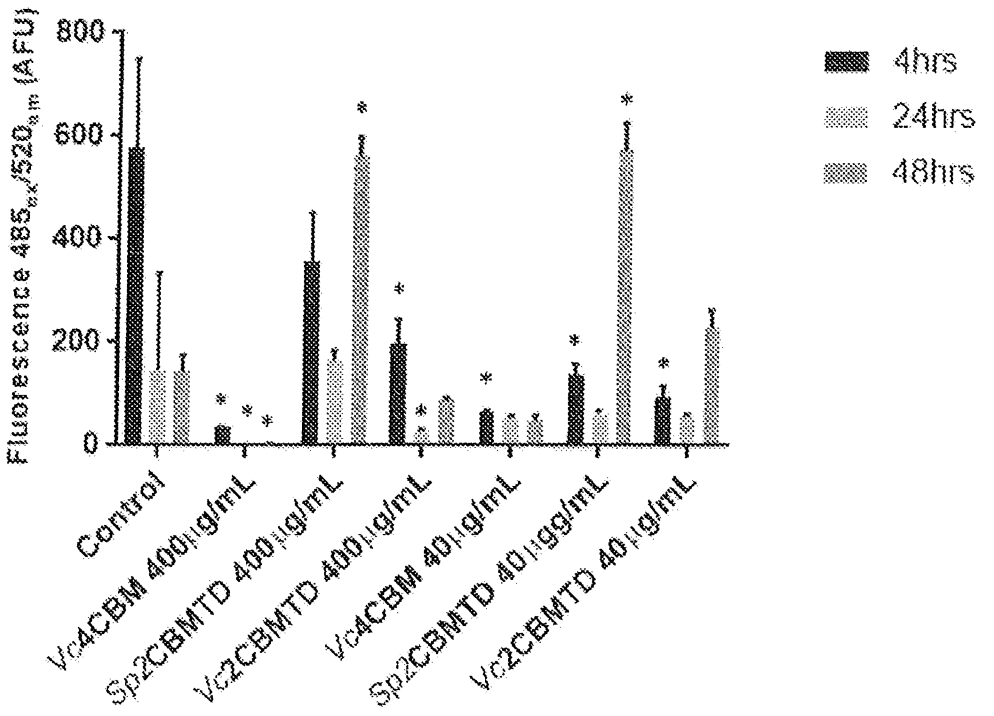


Figure 17