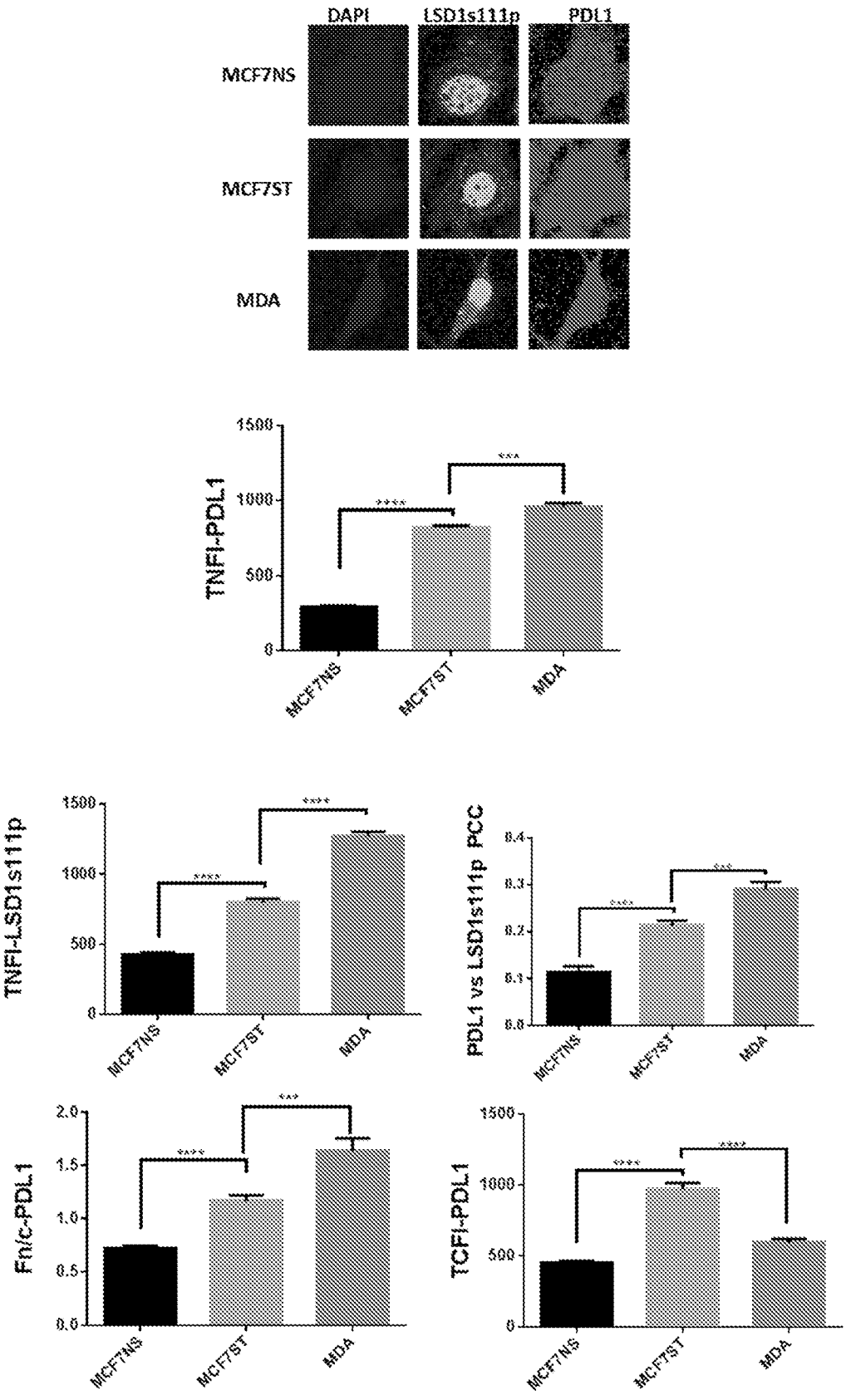

DAPI
LSD1s111p
PDL1
MCF7NS
MCF7ST
MDA
TNFI-PDL1
TNFI-LSD1s111p
PDL1 vs LSD1s111p PCC
Fn/c-PDL1
TCFI-PDL1
MCF7NS
MCF7ST
MDA

Figure 1

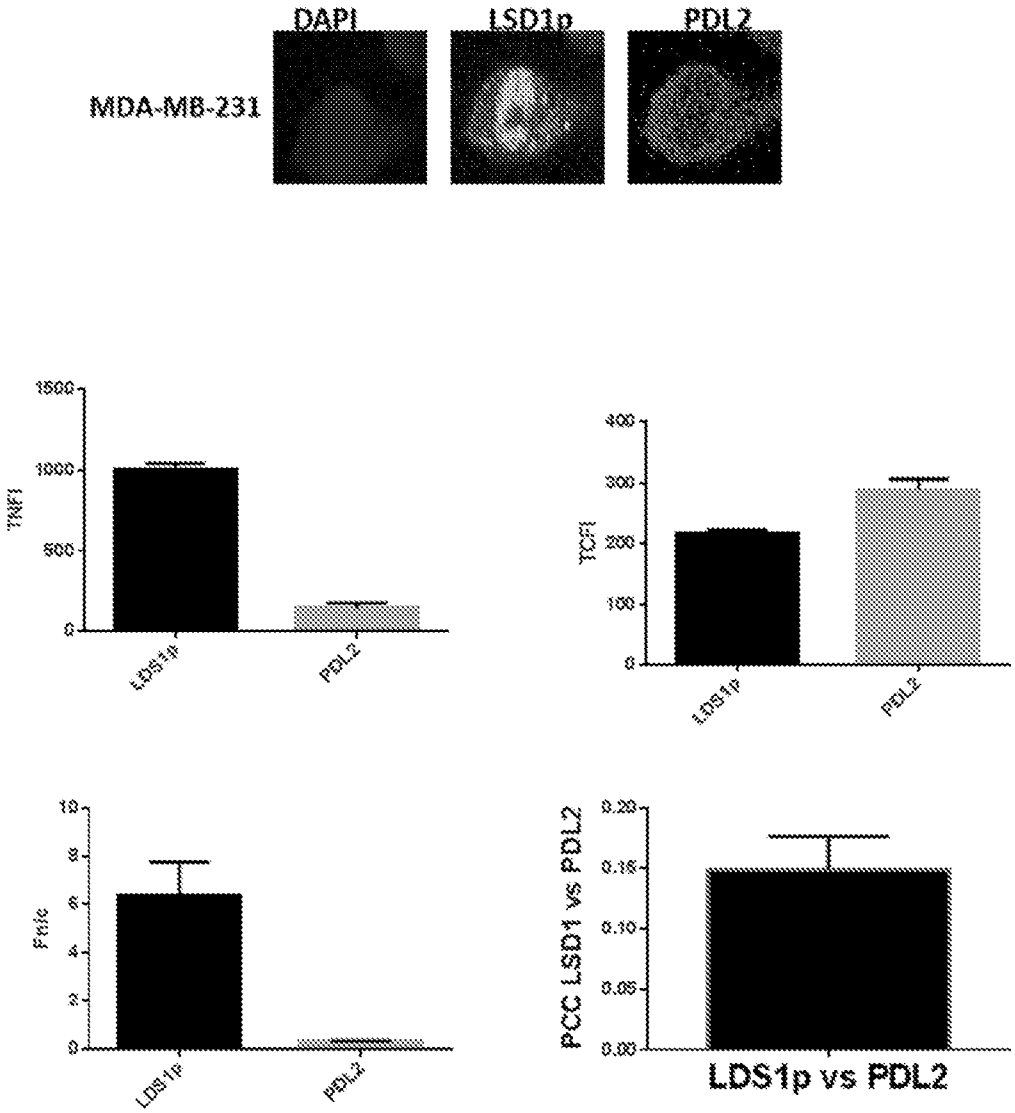

DAPI
LSD1p
PDL2
MDA-MB-231
TNFI
LDS1p
PDL2
TCFI
LDS1p
PDL2
Fn1c
LDS1p
PDL2
PCC LSD1 vs PDL2
LDS1p vs PDL2

Figure 2

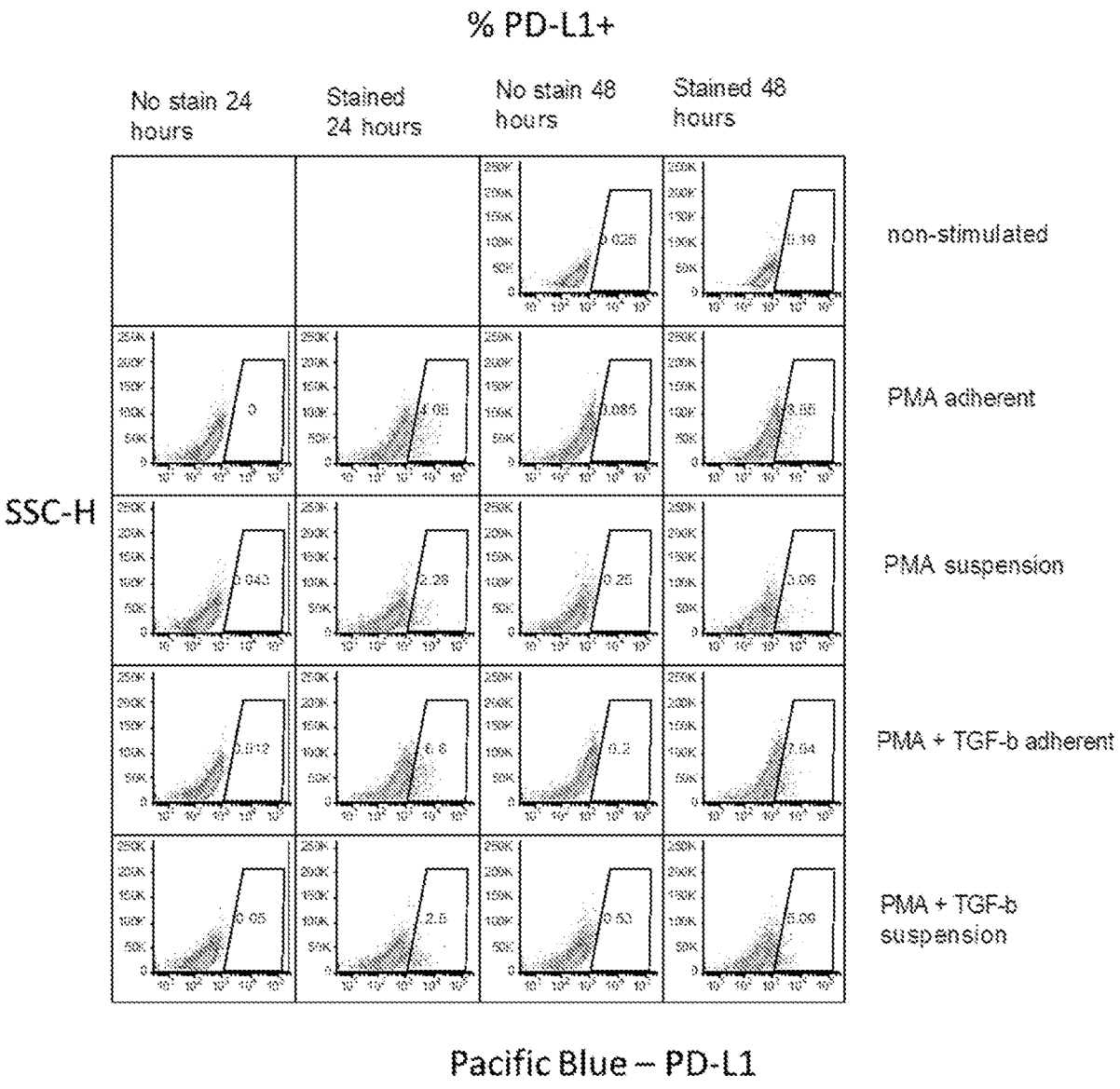

% PD-L1+
No stain 24 hours
Stained 24 hours
No stain 48 hours
Stained 48 hours
non-stimulated
PMA adherent
PMA suspension
PMA + TGF-b adherent
PMA + TGF-b suspension
SSC-H
Pacific Blue – PD-L1

Figure 3A

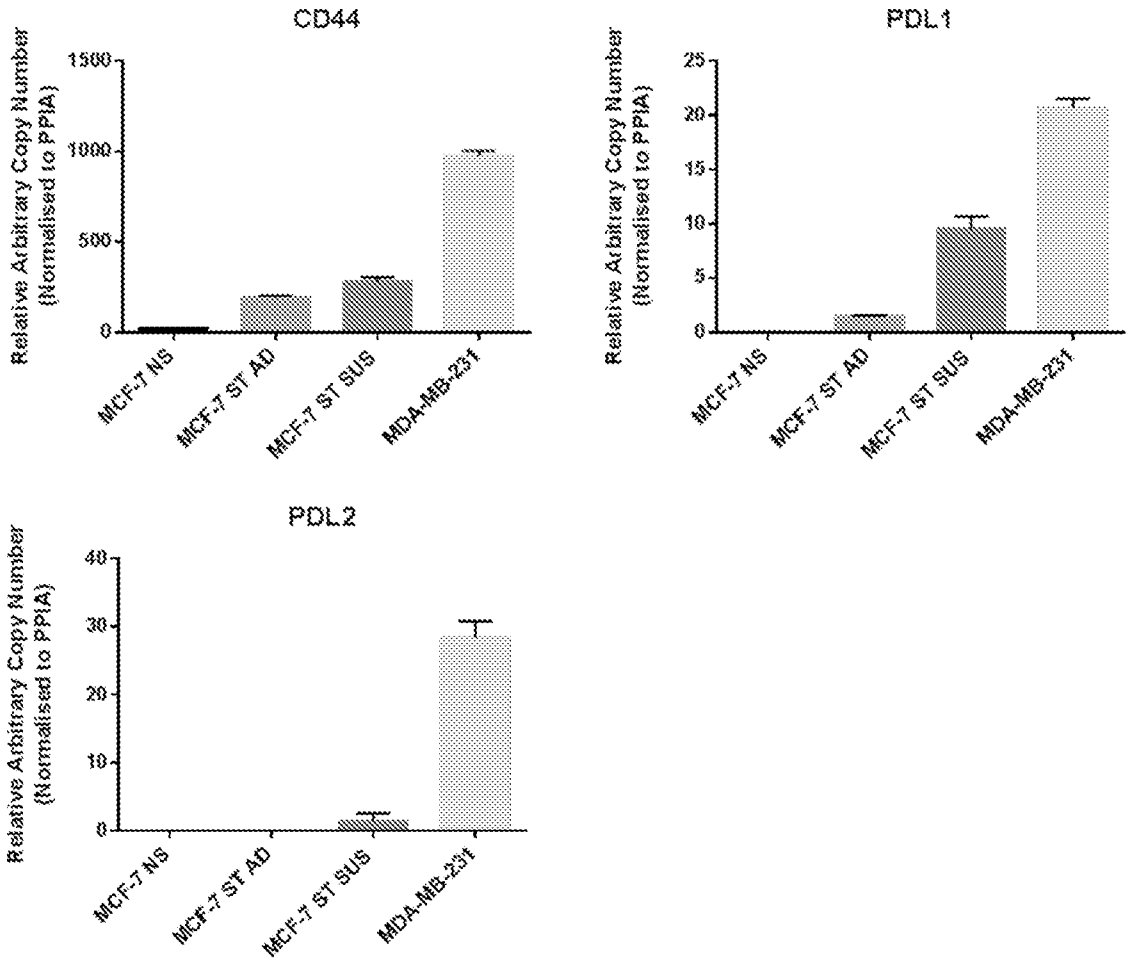
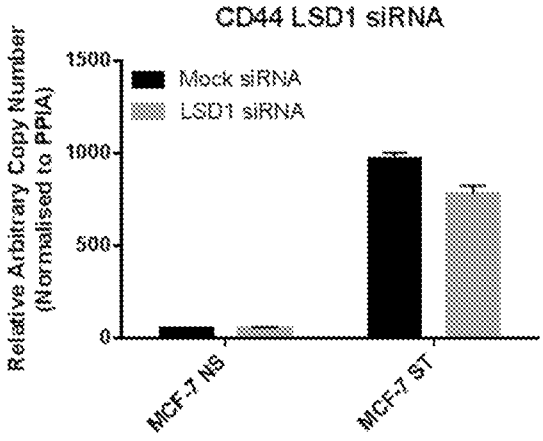
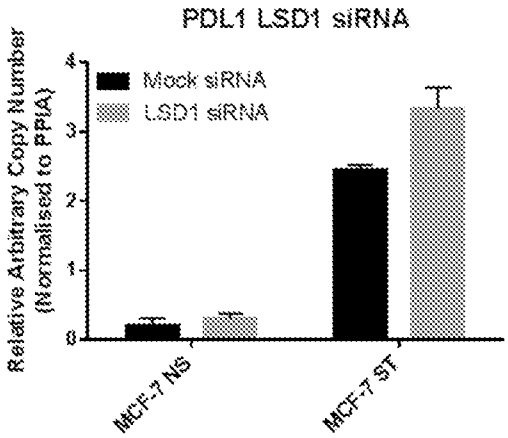

CD44
Relative Arbitrary Copy Number (Normalised to PPIA)
1500
1000
500
0
MCF-7 NS
MCF-7 ST AD
MCF-7 ST SUS
MDA-MB-231
PDL1
Relative Arbitrary Copy Number (Normalised to PPIA)
25
20
15
10
5
0
MCF-7 NS
MCF-7 ST AD
MCF-7 ST SUS
MDA-MB-231
PDL2
Relative Arbitrary Copy Number (Normalised to PPIA)
40
30
20
10
0
MCF-7 NS
MCF-7 ST AD
MCF-7 ST SUS
MDA-MB-231

Figure 3B


CD44 LSD1 siRNA
Relative Arbitrary Copy Number (Normalised to PPIA)
1500
1000
500
0
Mock siRNA
LSD1 siRNA
MCF-7 NS
MCF-7 ST


PDL1 LSD1 siRNA
Relative Arbitrary Copy Number (Normalised to PPIA)
4
3
2
1
0
Mock siRNA
LSD1 siRNA
MCF-7 NS
MCF-7 ST

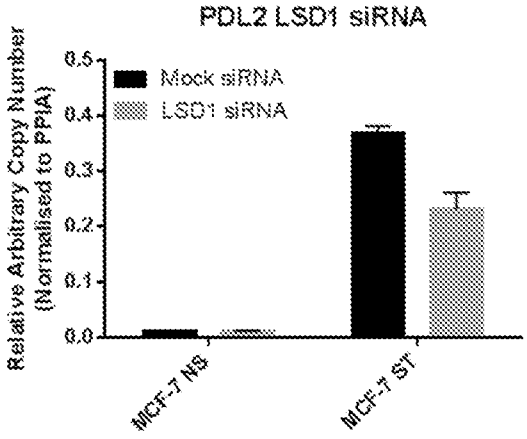
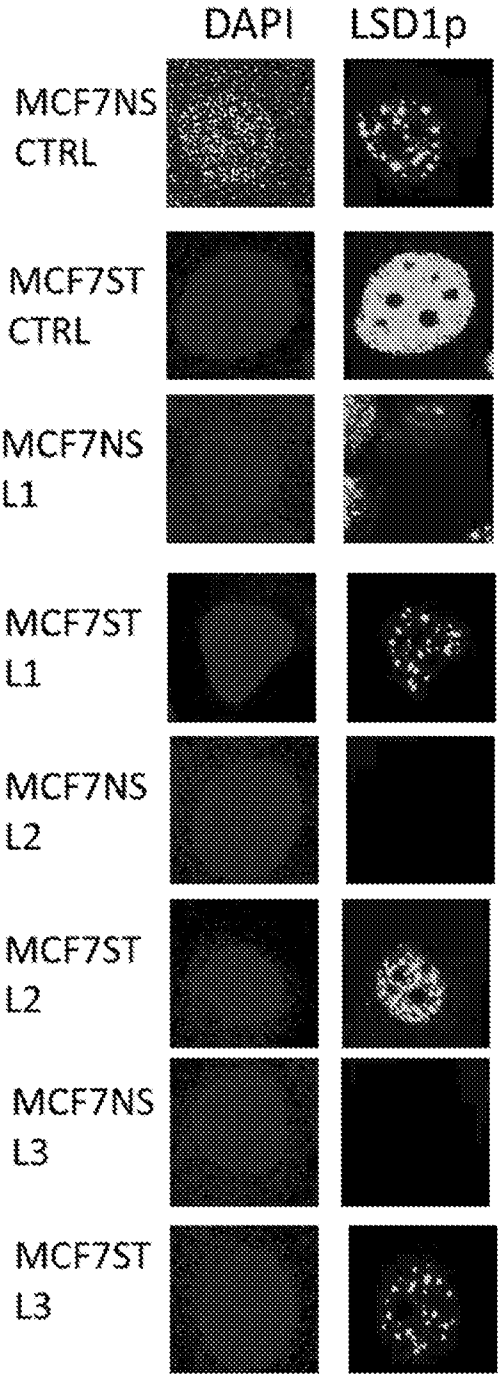
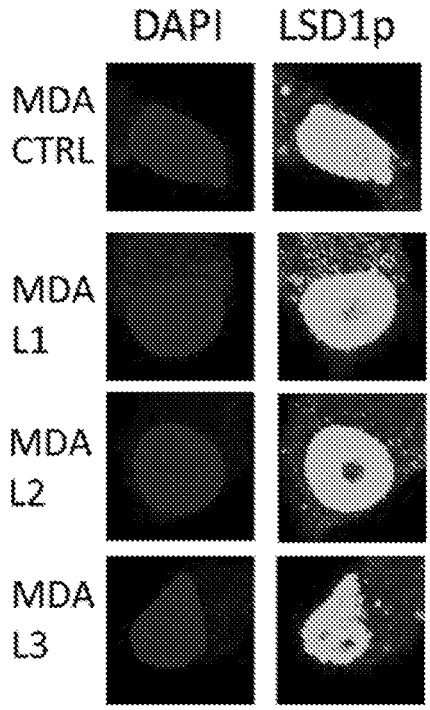
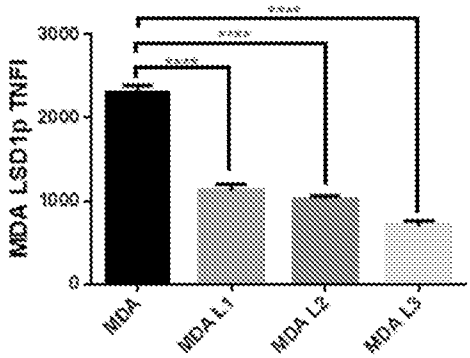

PDL2 LSD1 siRNA
Relative Arbitrary Copy Number (Normalised to PPIA)
0.5
0.4
0.3
0.2
0.1
0.0
Mock siRNA
LSD1 siRNA
MCF-7 NS
MCF-7 ST

Figure 3C


DAPI
LSD1p
MCF7NS CTRL
MCF7ST CTRL
MCF7NS L1
MCF7ST L1
MCF7NS L2
MCF7ST L2
MCF7NS L3
MCF7ST L3


DAPI
LSD1p
MDA CTRL
MDA L1
MDA L2
MDA L3


MDA LSD1p TNFI
3000
2000
1000
0
MDA
MDA L1
MDA L2
MDA L3

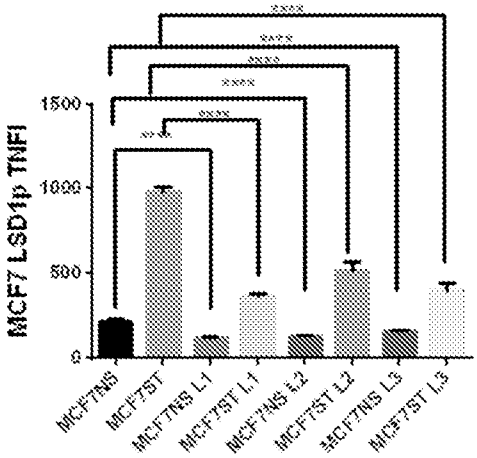

MCF7 LSD1p TNFI
1500
1000
500
0
MCF7NS
MCF7ST
MCF7NS L1
MCF7ST L1
MCF7NS L2
MCF7ST L2
MCF7NS L3
MCF7ST L3

Figure 4

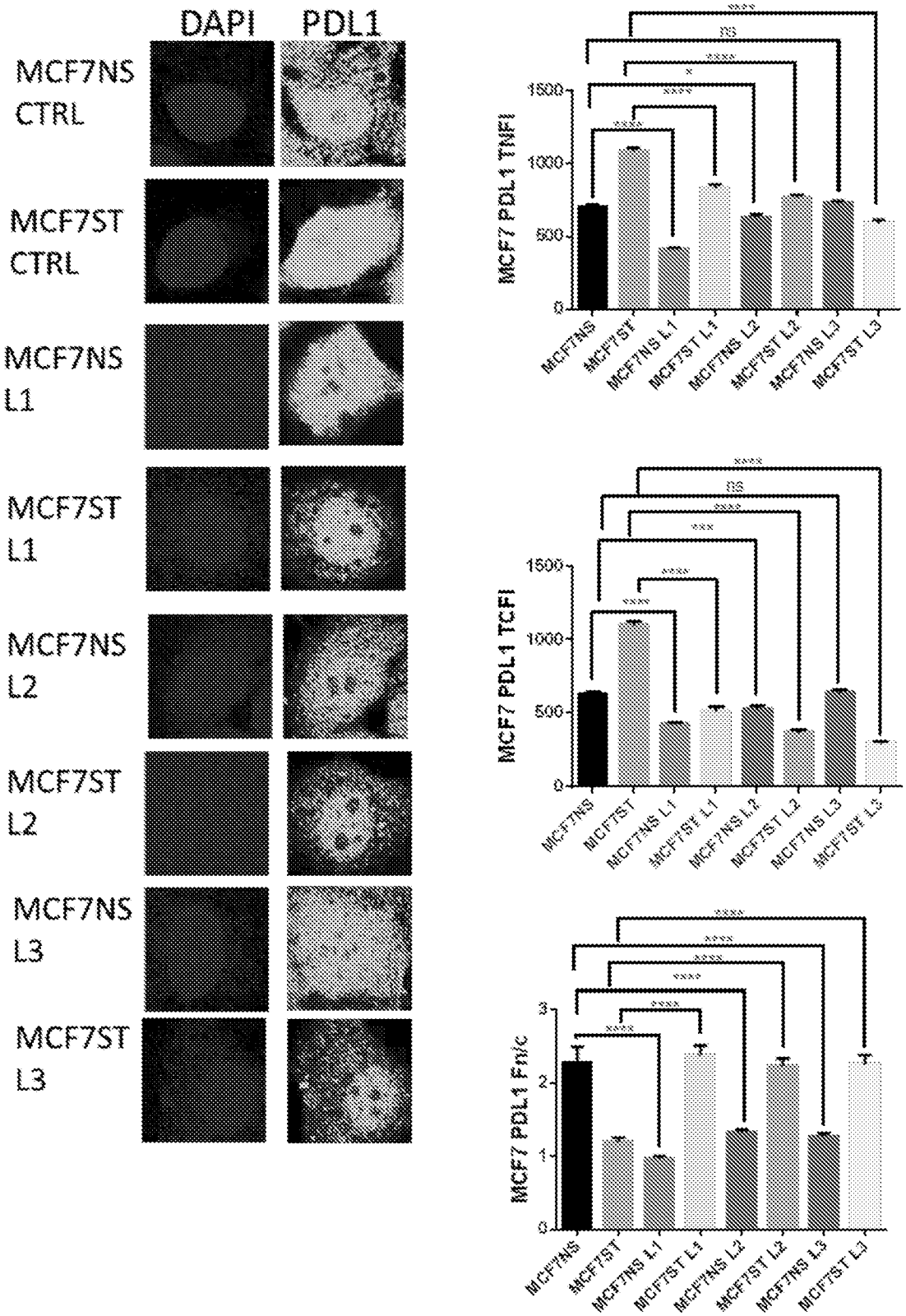

DAPI
PDL1
MCF7NS CTRL
MCF7ST CTRL
MCF7NS L1
MCF7ST L1
MCF7NS L2
MCF7ST L2
MCF7NS L3
MCF7ST L3
MCF7 PDL1 TNFI
MCF7 PDL1 TCFI
MCF7 PDL1 Fnlc
MCF7NS
MCF7ST
MCF7NS L1
MCF7ST L1
MCF7NS L2
MCF7ST L2
MCF7NS L3
MCF7ST L3

Figure 5

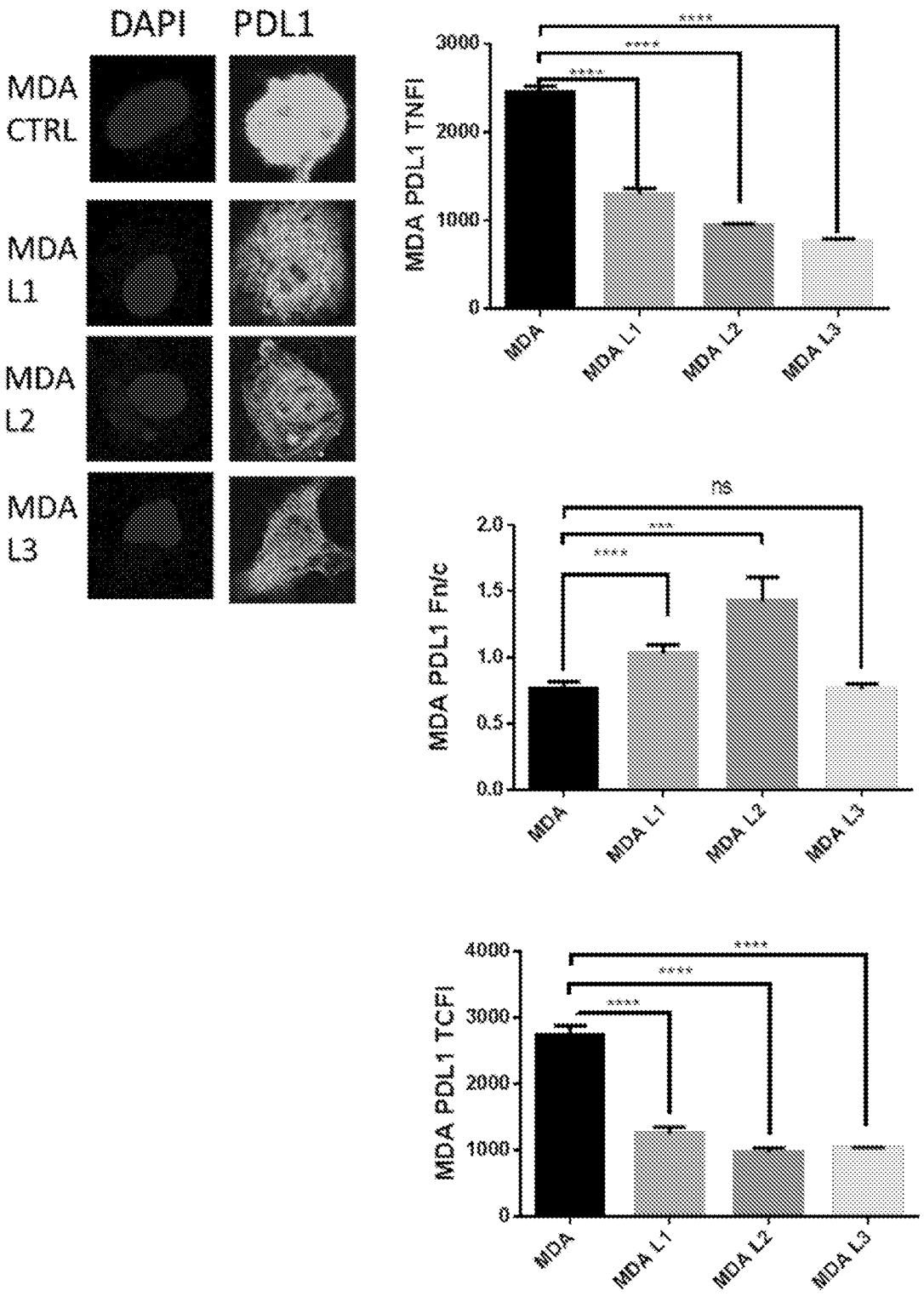

DAPI
PDL1
MDA CTRL
MDA L1
MDA L2
MDA L3
MDA PDL1 TNFI
3000
2000
1000
0
****
****
****
MDA
MDA L1
MDA L2
MDA L3
MDA PDL1 Fn/c
2.0
1.5
1.0
0.5
0.0
ns
***
****
MDA PDL1 TCFI
4000
3000
2000
1000
0
****
****
****

Figure 6

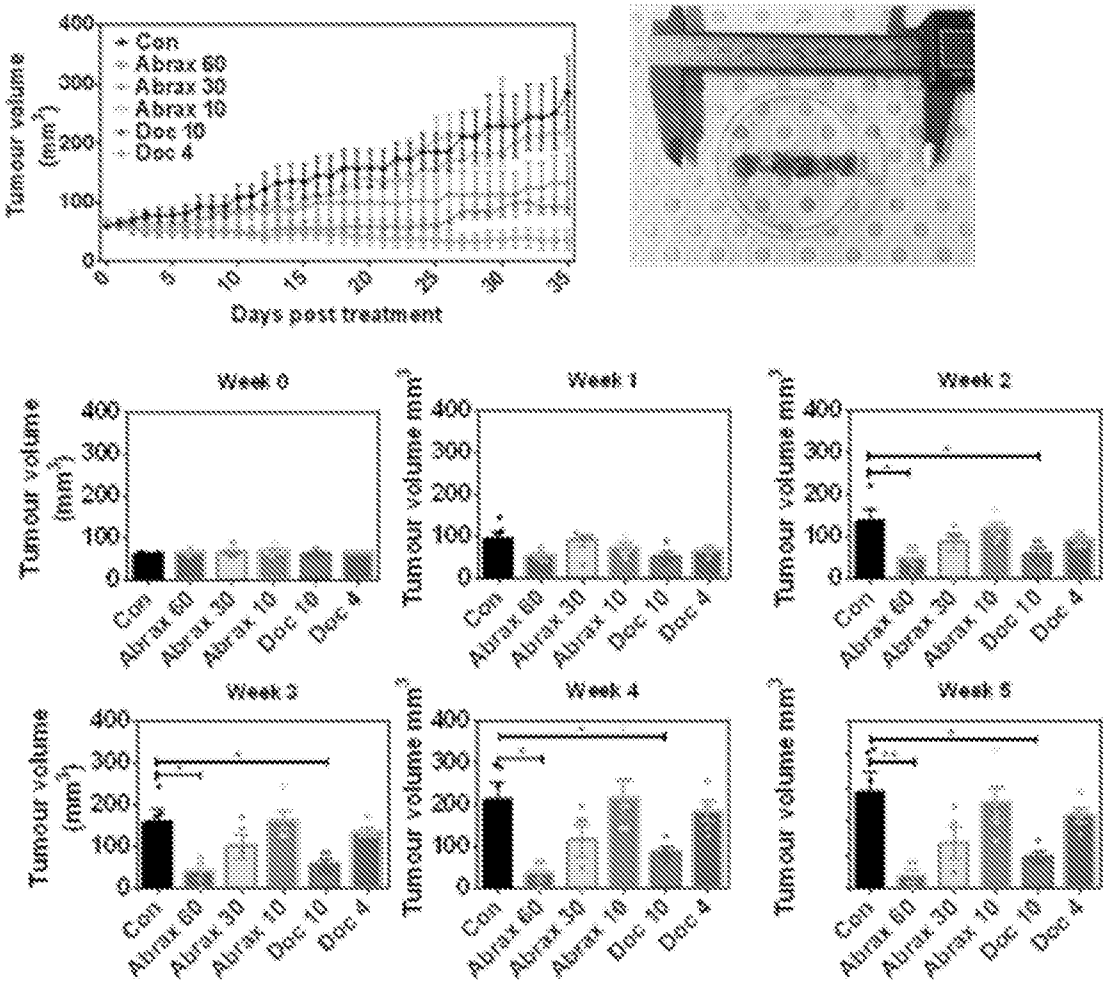

Con
Abrax 60
Abrax 30
Abrax 10
Doc 10
Doc 4
Tumour volume (mm³)
Days post treatment
Week 0
Week 1
Week 2
Week 3
Week 4
Week 5
Tumour volume mm³

Figure 7A

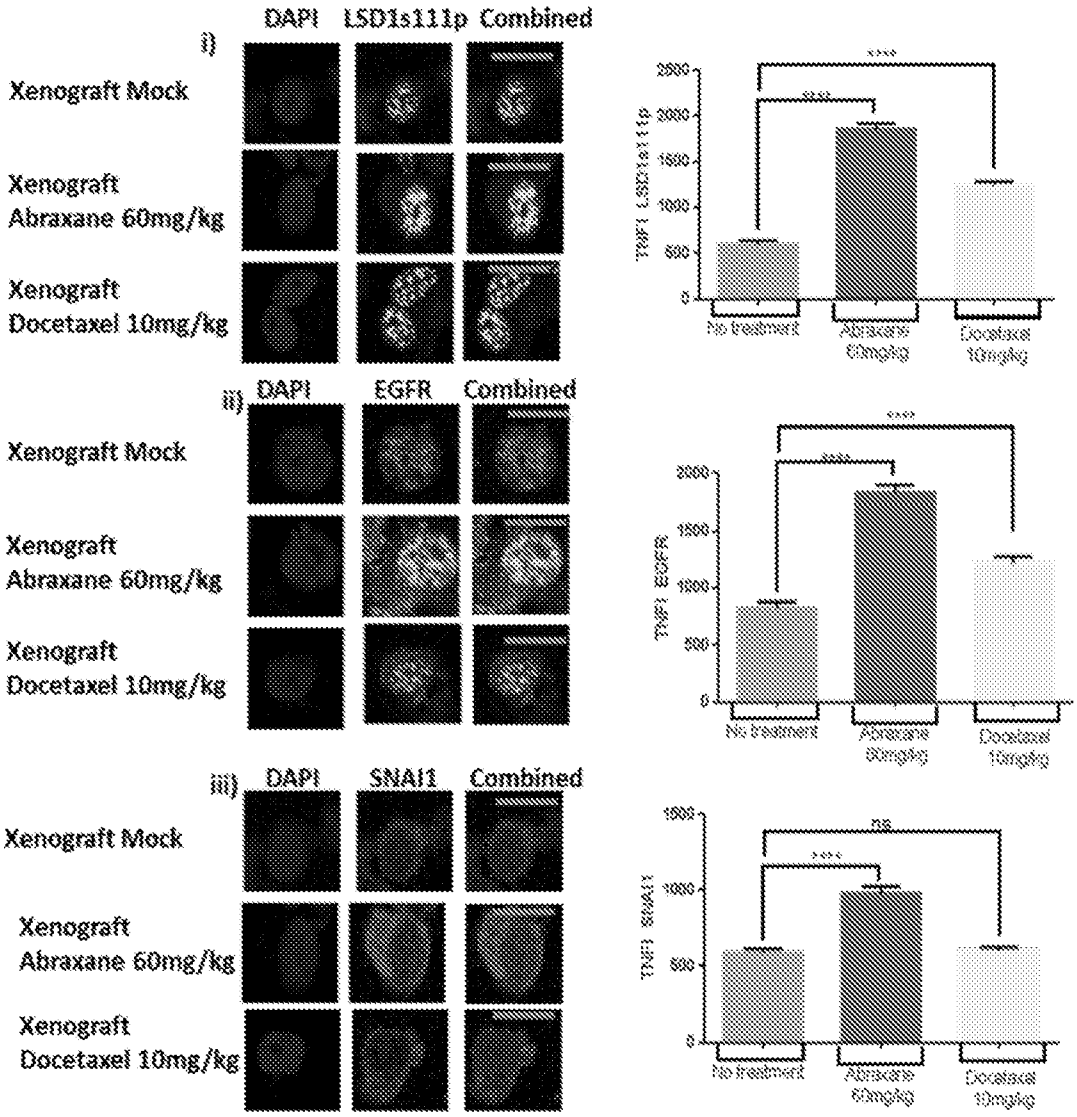
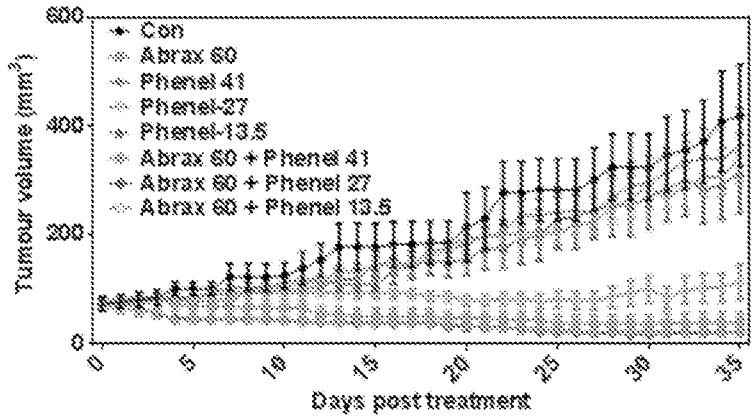

i)
DAPI
LSD1s111p
Combined
Xenograft Mock
Xenograft Abraxane 60mg/kg
Xenograft Docetaxel 10mg/kg
TNFI LSD1s111p
No treatment
Abraxane 60mg/kg
Docetaxel 10mg/kg
ii)
DAPI
EGFR
Combined
Xenograft Mock
Xenograft Abraxane 60mg/kg
Xenograft Docetaxel 10mg/kg
TNFI EGFR
No treatment
Abraxane 60mg/kg
Docetaxel 10mg/kg
iii)
DAPI
SNAI1
Combined
Xenograft Mock
Xenograft Abraxane 60mg/kg
Xenograft Docetaxel 10mg/kg
TNFI SNAI1
ns
No treatment
Abraxane 60mg/kg
Docetaxel 10mg/kg

Figure 7B

a


Con
Abrax 60
Phenel 41
Phenel-27
Phenel-13.5
Abrax 60 + Phenel 41
Abrax 60 + Phenel 27
Abrax 60 + Phenel 13.5
Tumour volume (mm³)
600
400
200
0
0
5
10
15
20
25
30
35
Days post treatment

b

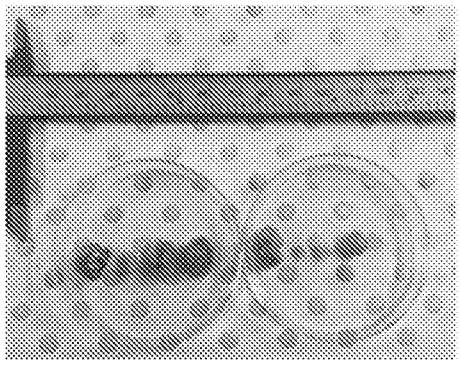
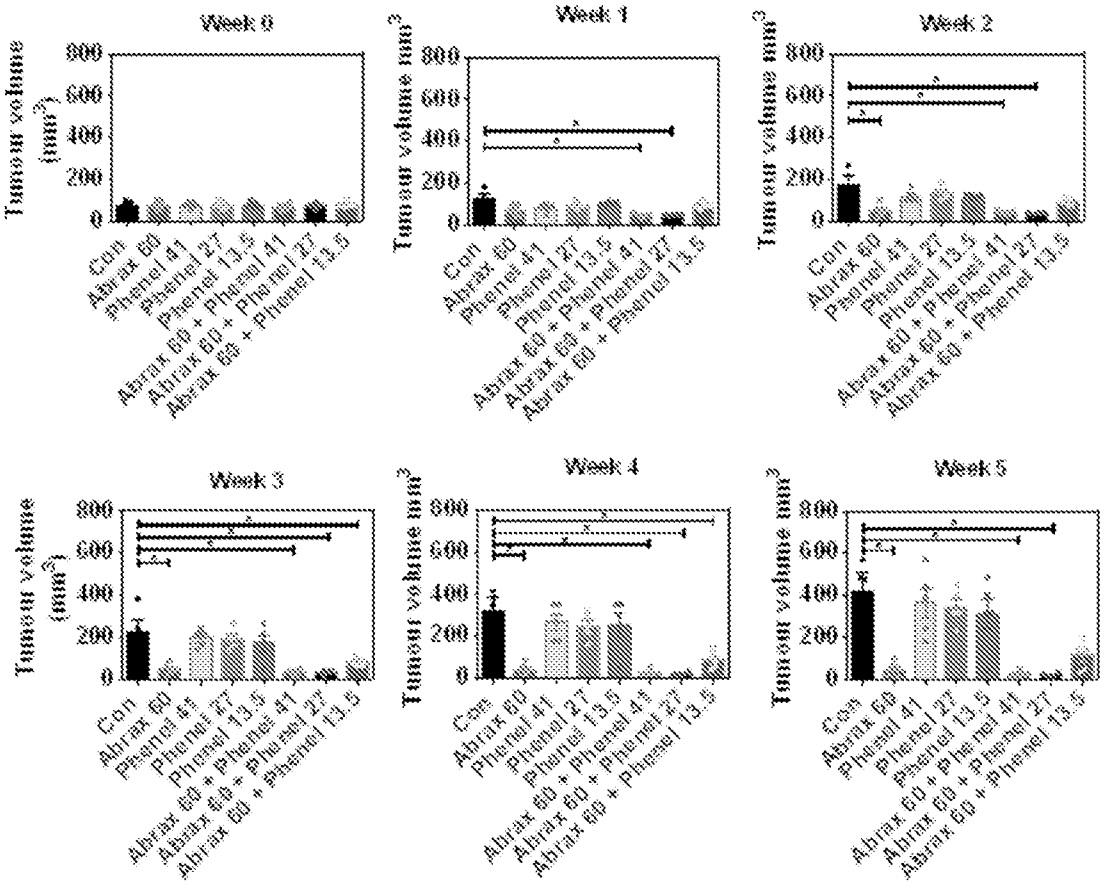


Figure 8

C



D

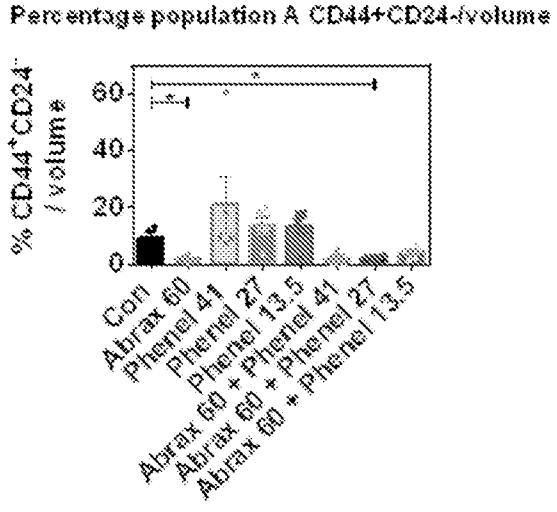


Figure 8 continued

e

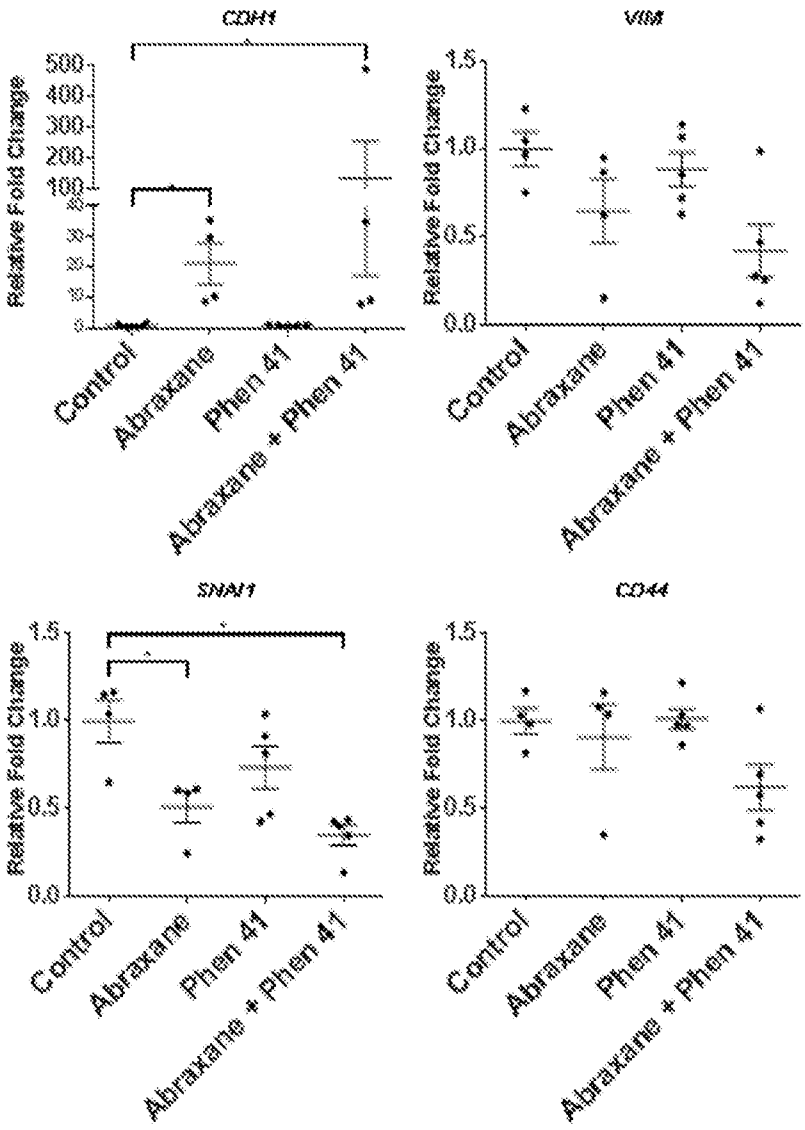


Figure 8 continued

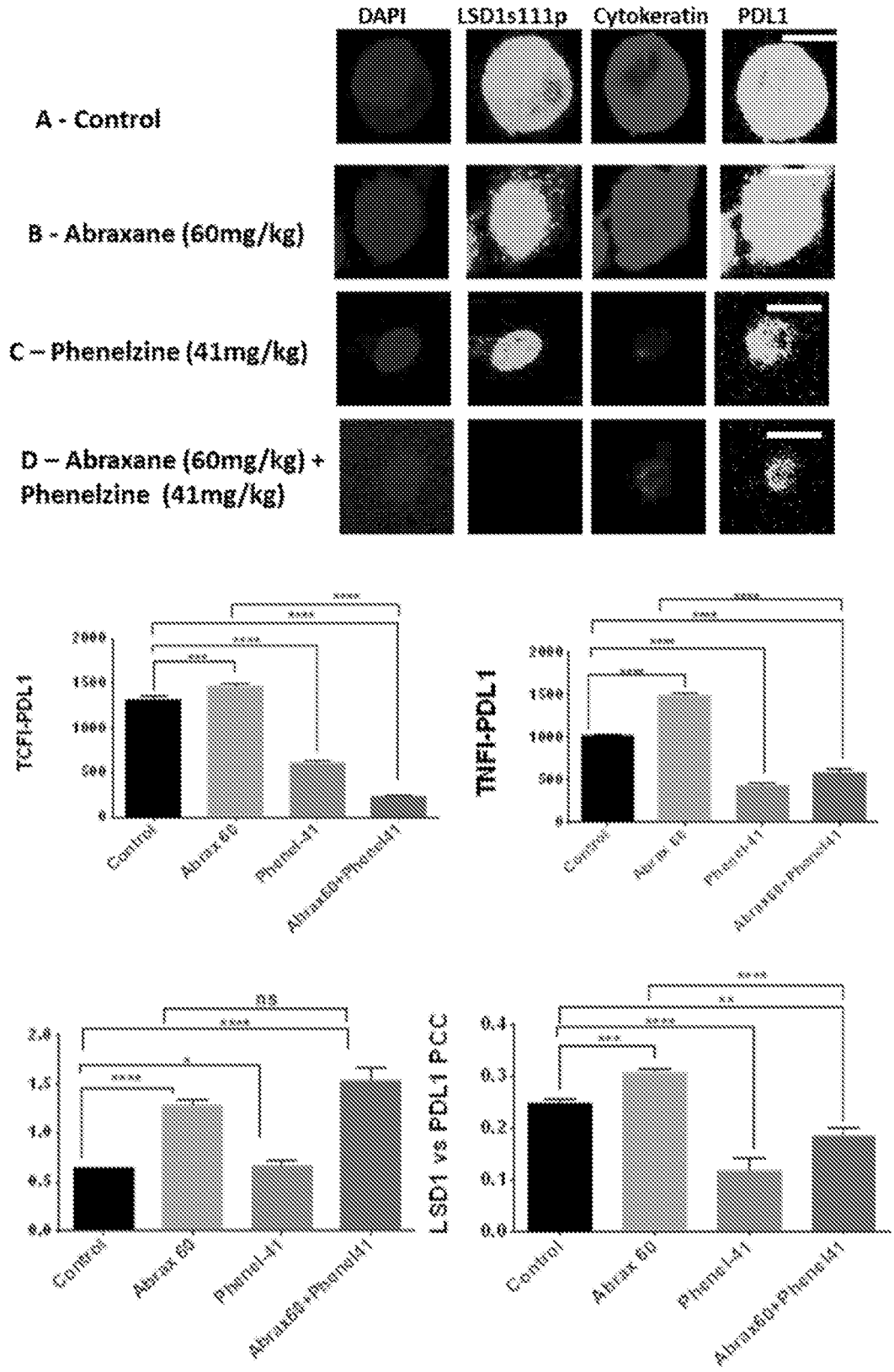

DAPI
LSD1s111p
Cytokeratin
PDL1
A - Control
B - Abraxane (60mg/kg)
C – Phenelzine (41mg/kg)
D – Abraxane (60mg/kg) + Phenelzine (41mg/kg)
TCFI-PDL1
TNFI-PDL1
Fn/c-PDL1
LSD1 vs PDL1 PCC
Control
Abrax 60
Phenel-41
Abrax60+Phenel41

Figure 9

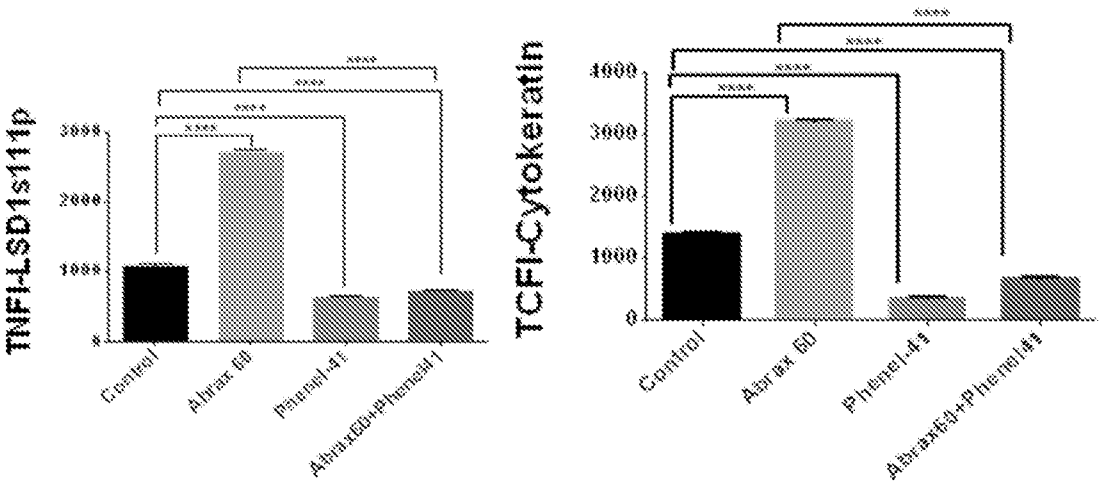
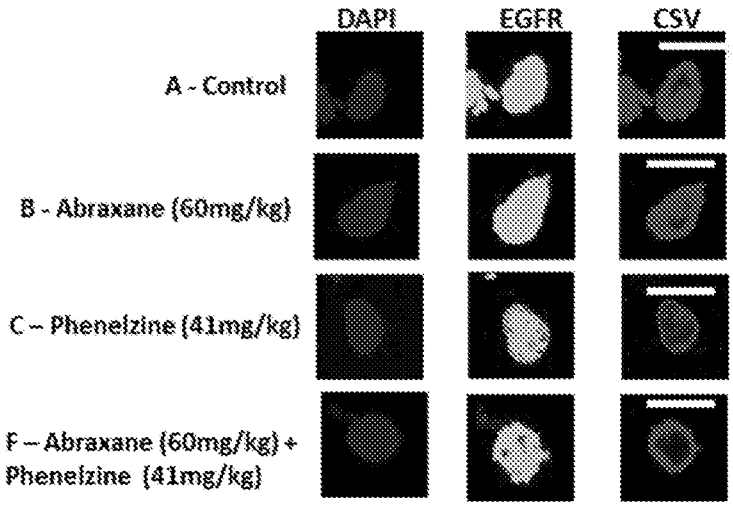
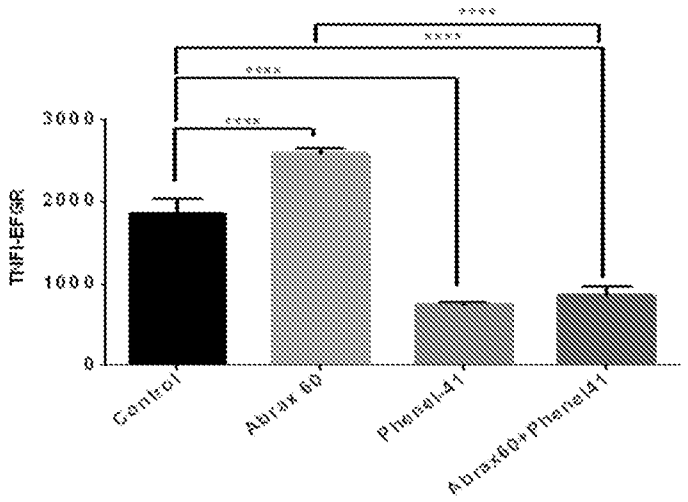


Figure 9 continued


DAPI
EGFR
CSV
A - Control
B - Abraxane (60mg/kg)
C – Phenelzine (41mg/kg)
F – Abraxane (60mg/kg) + Phenelzine (41mg/kg)


TKFI-EFGR
3000
2000
1000
0
Control
Abrax 60
Phenel-41
Abrax60+Phenel41

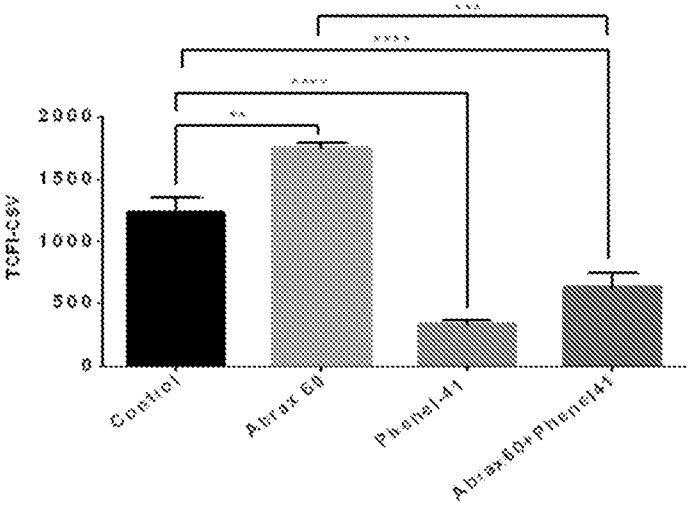
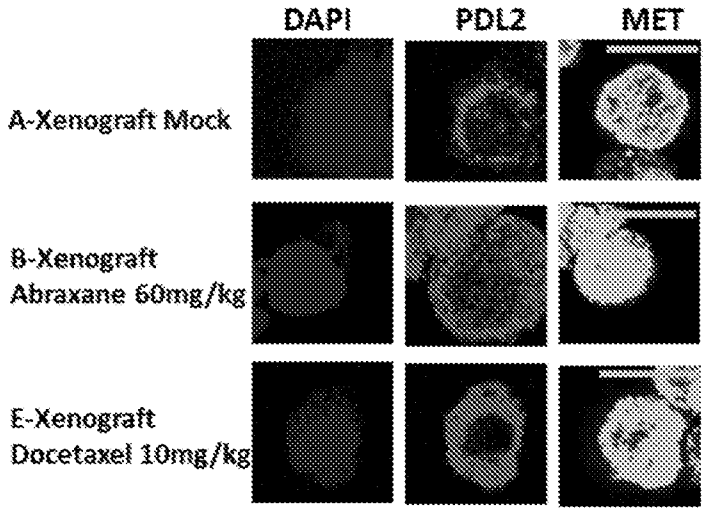

TCFI-CSV
2000
1500
1000
500
0
Control
Abrax 60
Phenel-41
Abrax60+Phenel41

Figure 10


DAPI
PDL2
MET
A-Xenograft Mock
B-Xenograft
Abraxane 60mg/kg
E-Xenograft
Docetaxel 10mg/kg

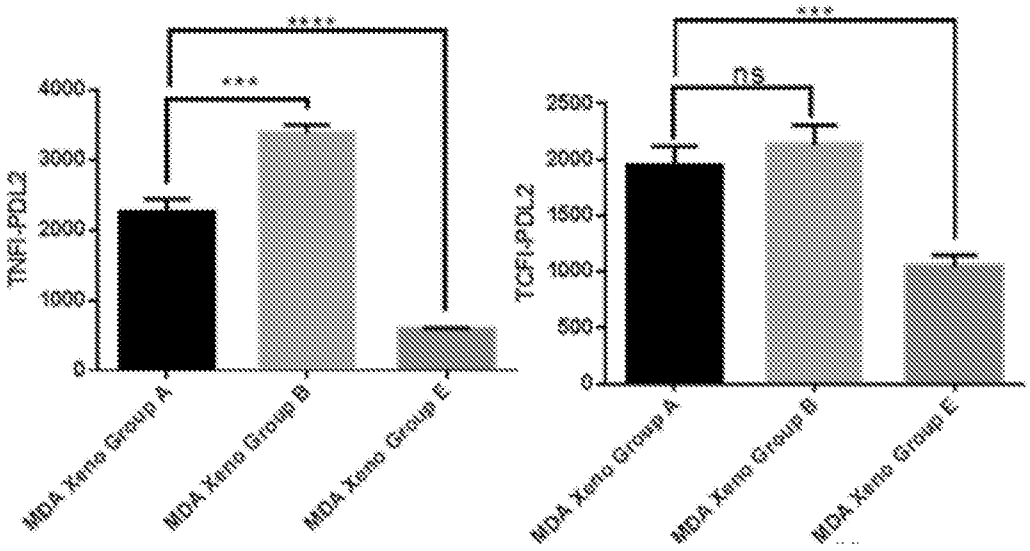

TNFAIP2L2
4000
3000
2000
1000
0
****
***
MDA Xeno Group A
MDA Xeno Group B
MDA Xeno Group E
TCF1/PDL2
2500
2000
1500
1000
500
0
***
ns
MDA Xeno Group A
MDA Xeno Group B
MDA Xeno Group E

Figure 11

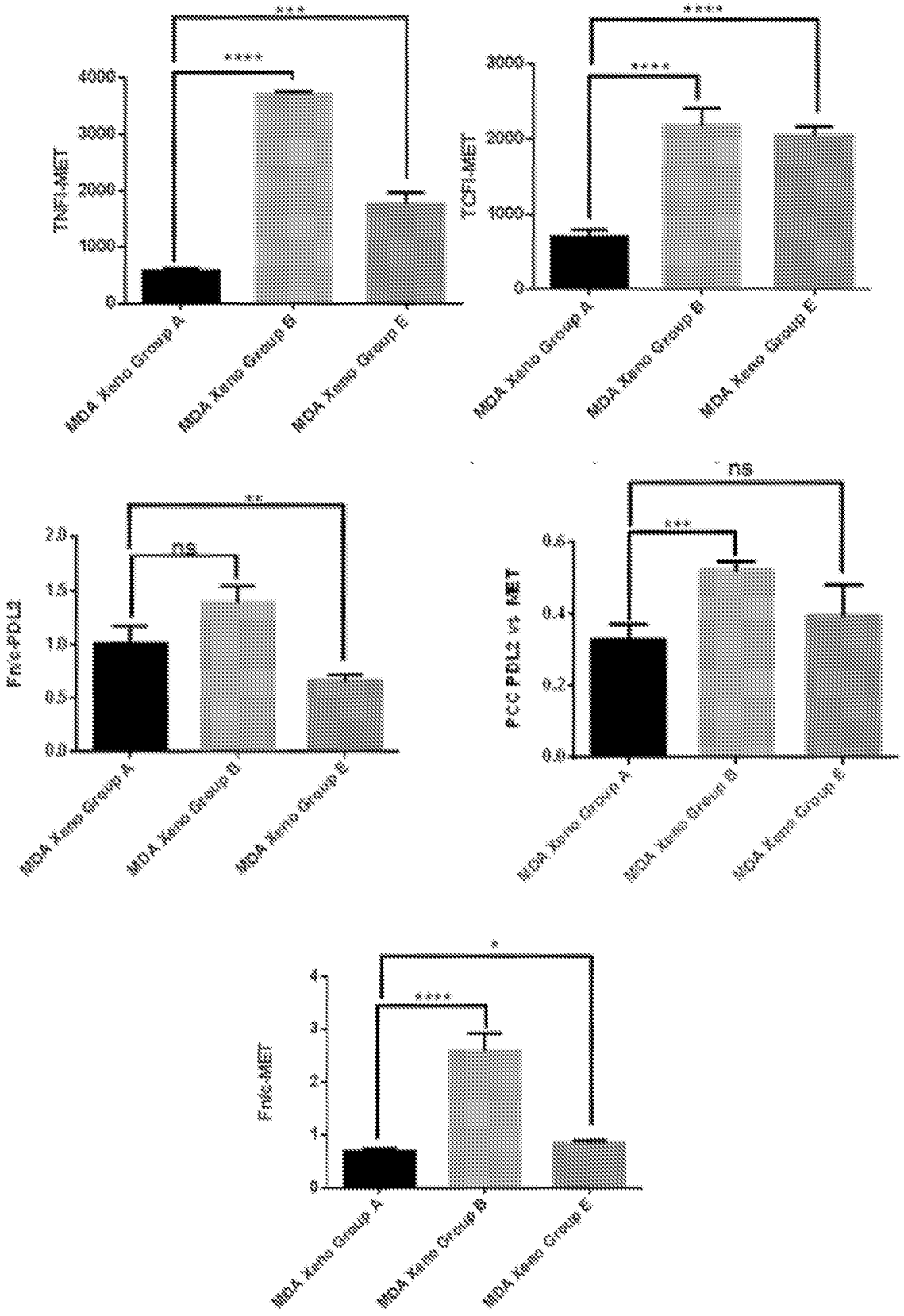


Figure 11 continued

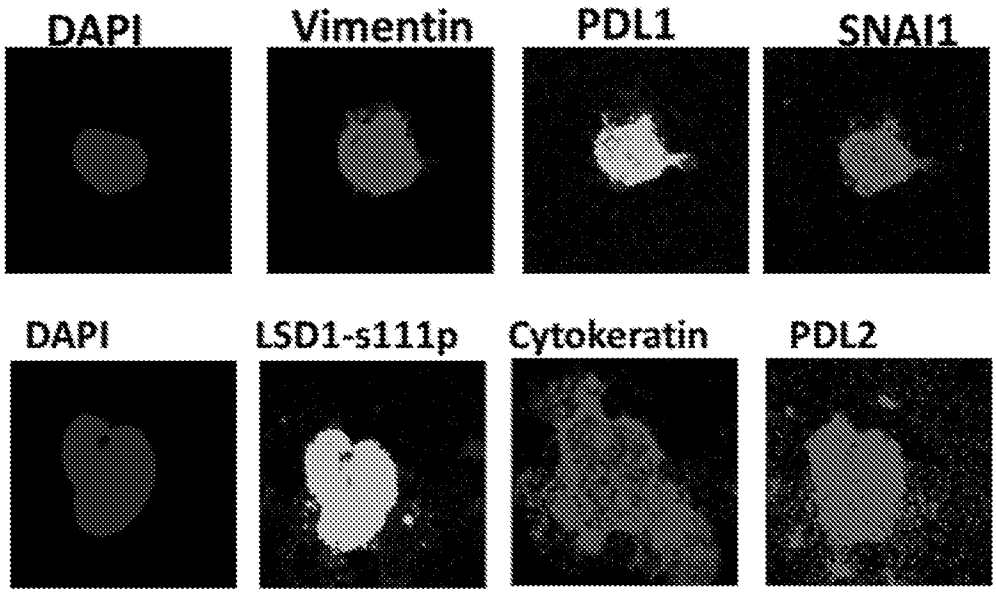


Figure 12

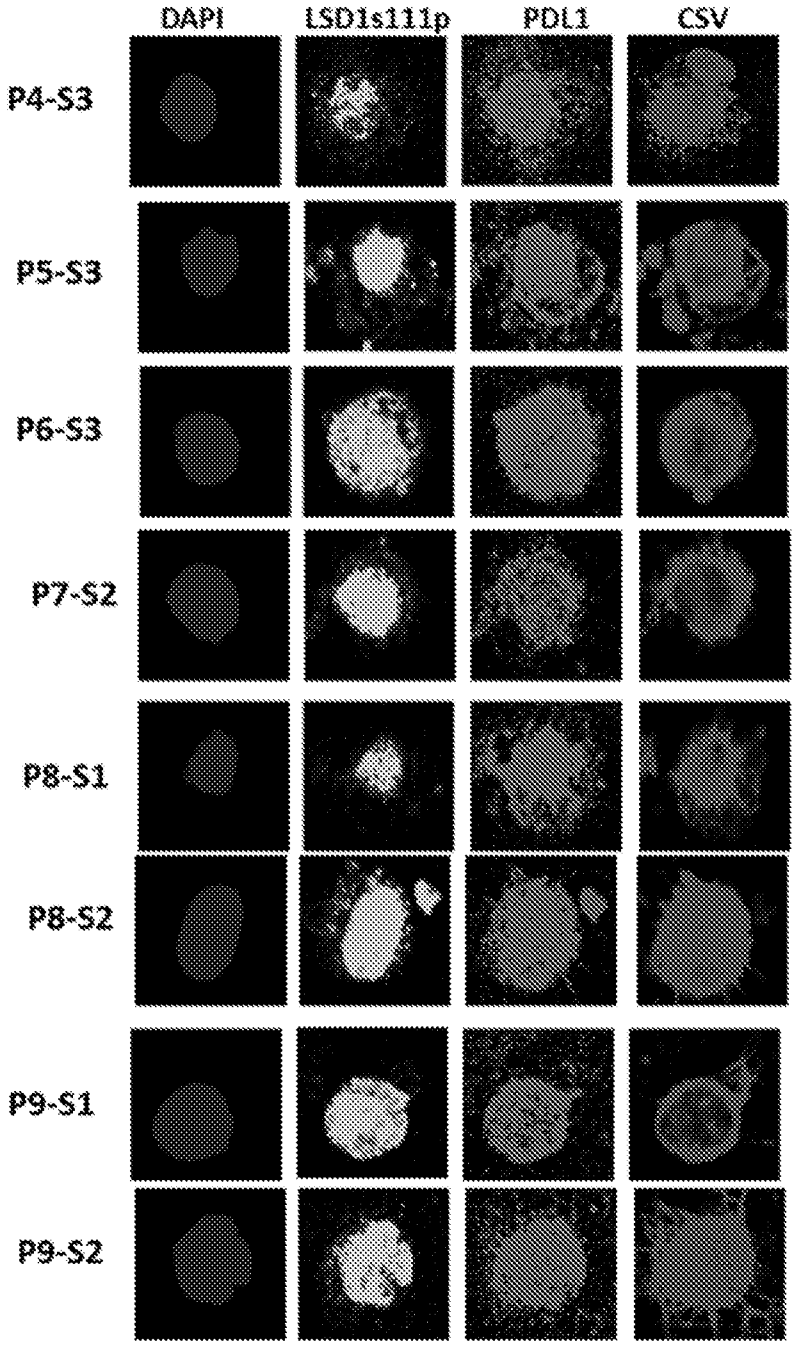

DAPI
LSD1s111p
PDL1
CSV
P4-S3
P5-S3
P6-S3
P7-S2
P8-S1
P8-S2
P9-S1
P9-S2

Figure 13A

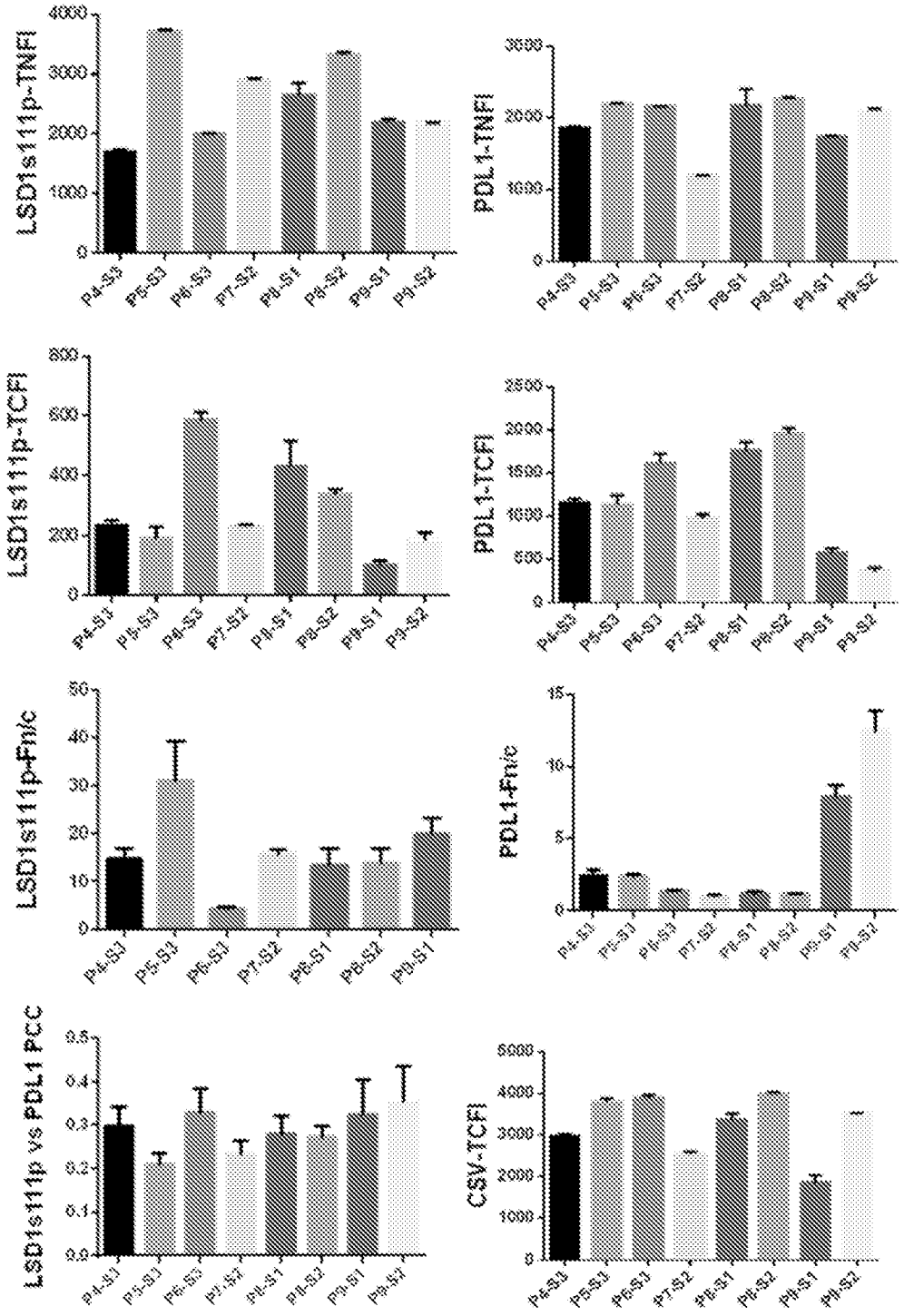

LSD1s111p-TNFI
PDL1-TNFI
LSD1s111p-TCFI
PDL1-TCFI
LSD1s111p-Fn/c
PDL1-Fn/c
LSD1s111p vs PDL1 PCC
CSV-TCFI
P4-S3
P5-S3
P6-S3
P7-S2
P8-S1
P8-S2
P9-S1
P9-S2

Figure 13B

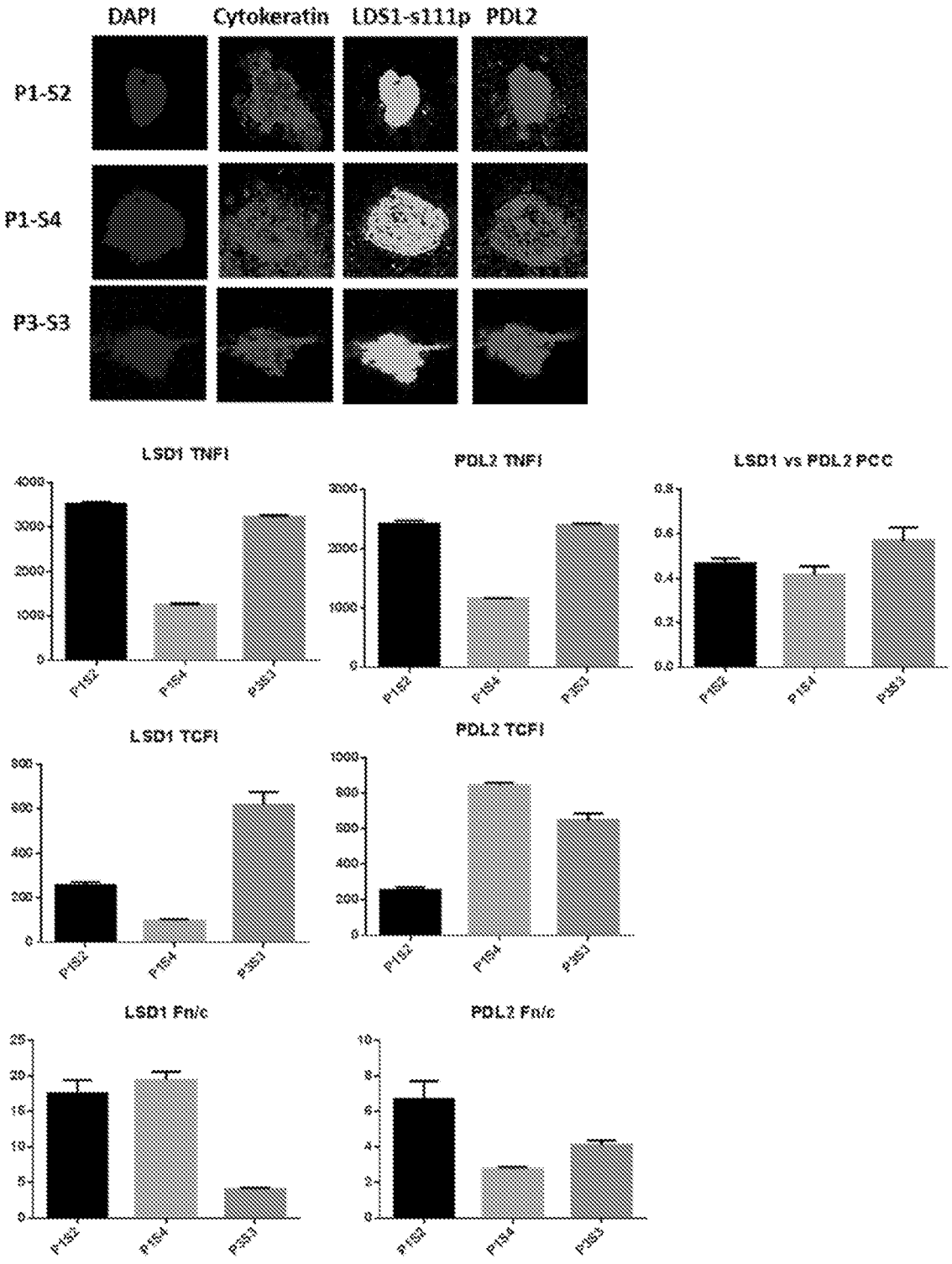

DAPI
Cytokeratin
LD51-s111p
PDL2
P1-S2
P1-S4
P3-S3
LSD1 TNFI
PDL2 TNFI
LSD1 vs PDL2 PCC
LSD1 TCFI
PDL2 TCFI
LSD1 Fn/c
PDL2 Fn/c

Figure 14

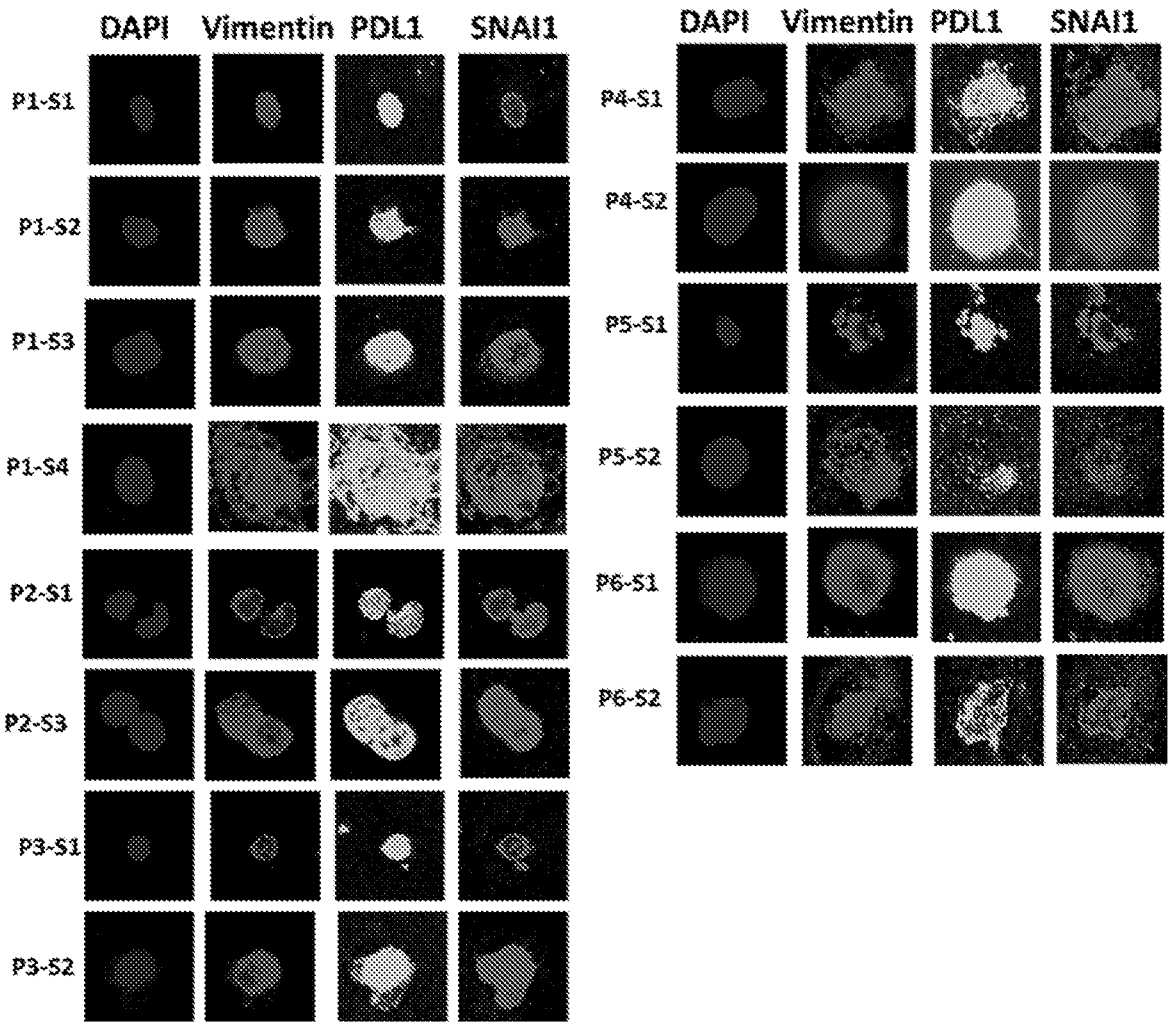

DAPI
Vimentin
PDL1
SNAI1
P1-S1
P1-S2
P1-S3
P1-S4
P2-S1
P2-S3
P3-S1
P3-S2
DAPI
Vimentin
PDL1
SNAI1
P4-S1
P4-S2
P5-S1
P5-S2
P6-S1
P6-S2

Figure 15A

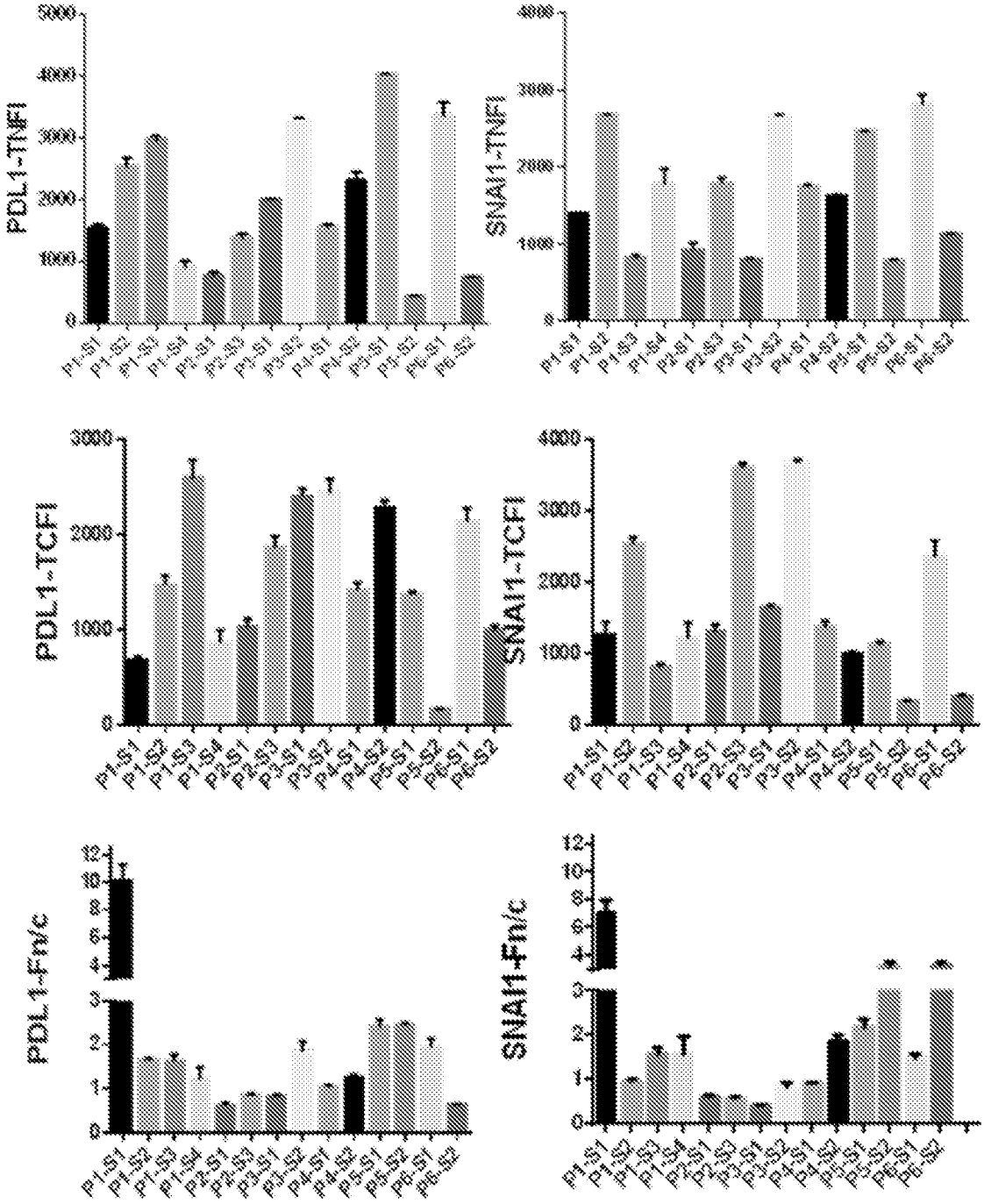

PDL1-TNFI
SNAI1-TNFI
PDL1-TCFI
SNAI1-TCFI
PDL1-Fn/c
SNAI1-Fn/c
P1-S1
P1-S2
P1-S3
P1-S4
P2-S1
P2-S2
P3-S1
P3-S2
P4-S1
P4-S2
P5-S1
P5-S2
P6-S1
P6-S2

Figure 15B

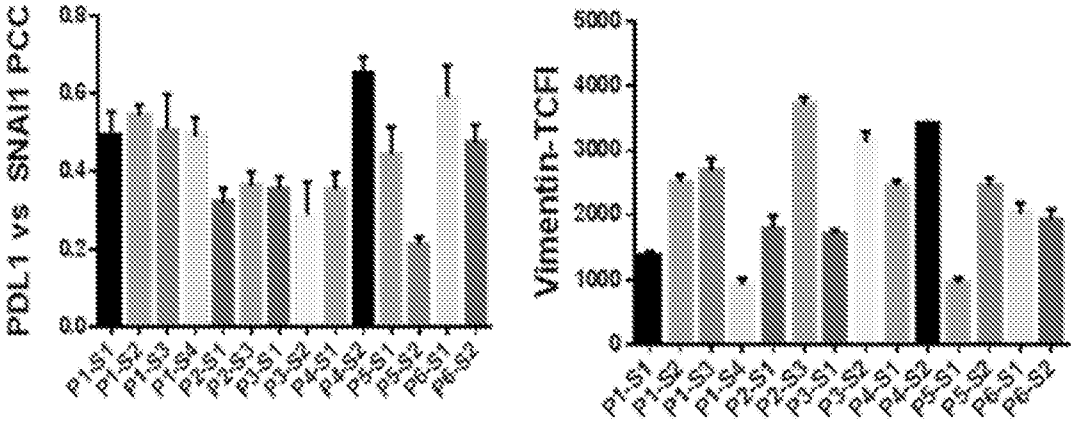


Figure 15B continued

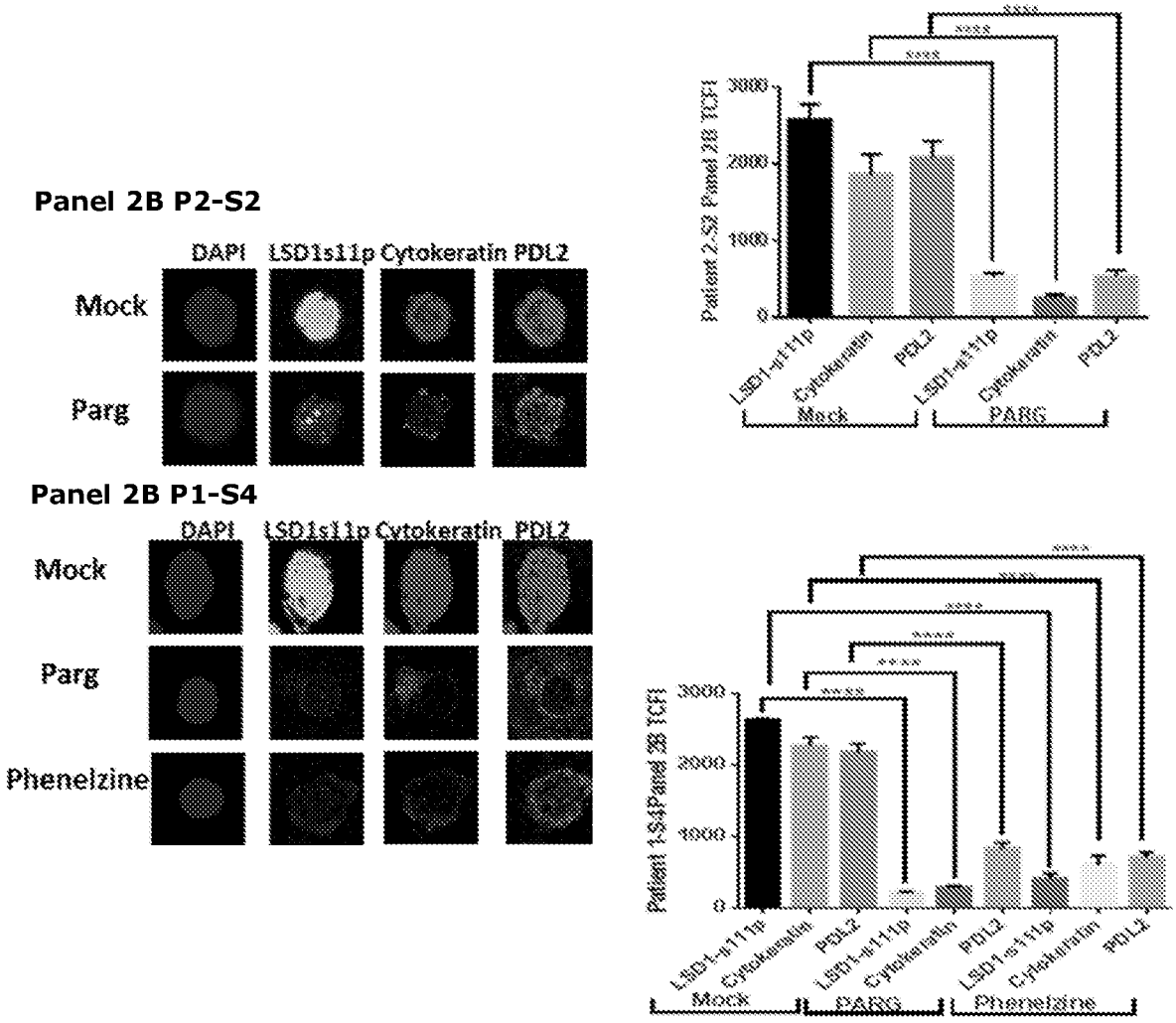

Panel 2B P2-S2
DAPI
LSD1s11p
Cytokeratin
PDL2
Mock
Parg
Patient 2-S2 Panel 2B TCFI
3000
2000
1000
0
LSD1-s11p
Cytokeratin
PDL2
Mock
PARG
Panel 2B P1-S4
Phenelzine
Patient 1-S4 Panel 2B TCFI
Phenelzine

Figure 16

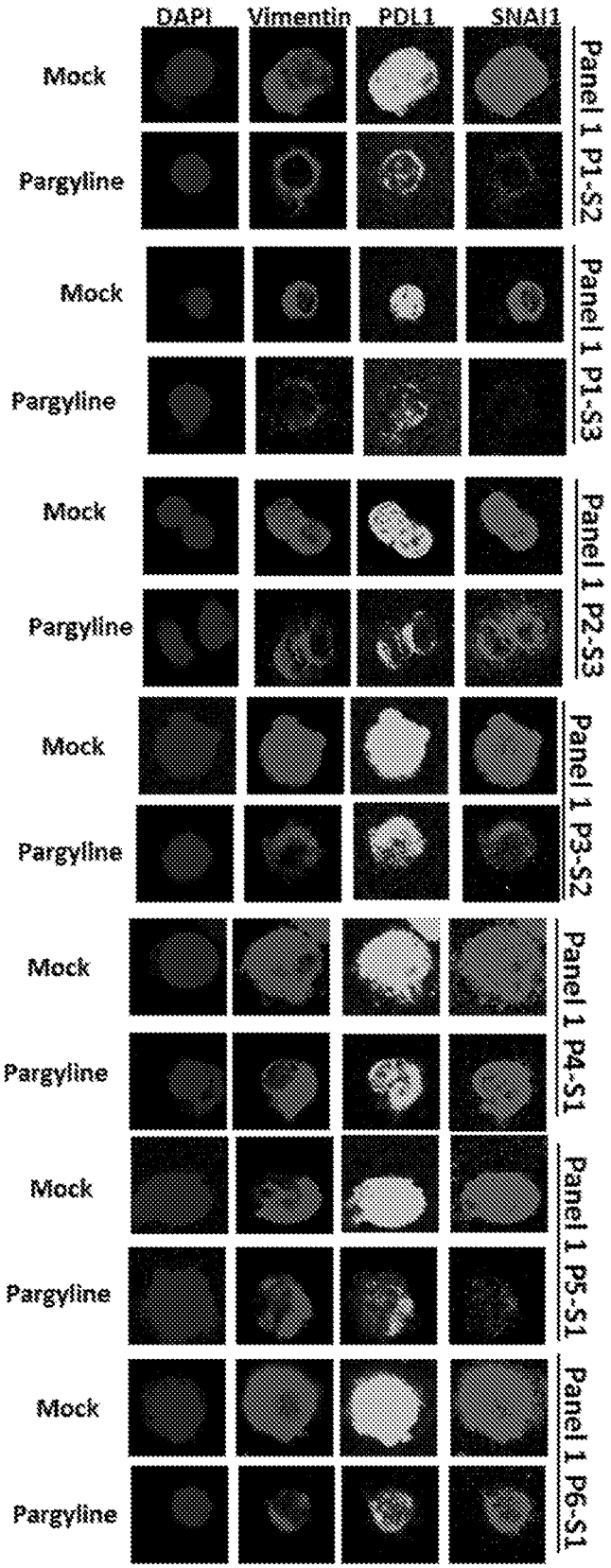

DAPI
Vimentin
PDL1
SNAI1
Mock
Pargyline
Panel 1 P1-S2
Mock
Pargyline
Panel 1 P1-S3
Mock
Pargyline
Panel 1 P2-S3
Mock
Pargyline
Panel 1 P3-S2
Mock
Pargyline
Panel 1 P4-S1
Mock
Pargyline
Panel 1 P5-S1
Mock
Pargyline
Panel 1 P6-S1

Figure 17A

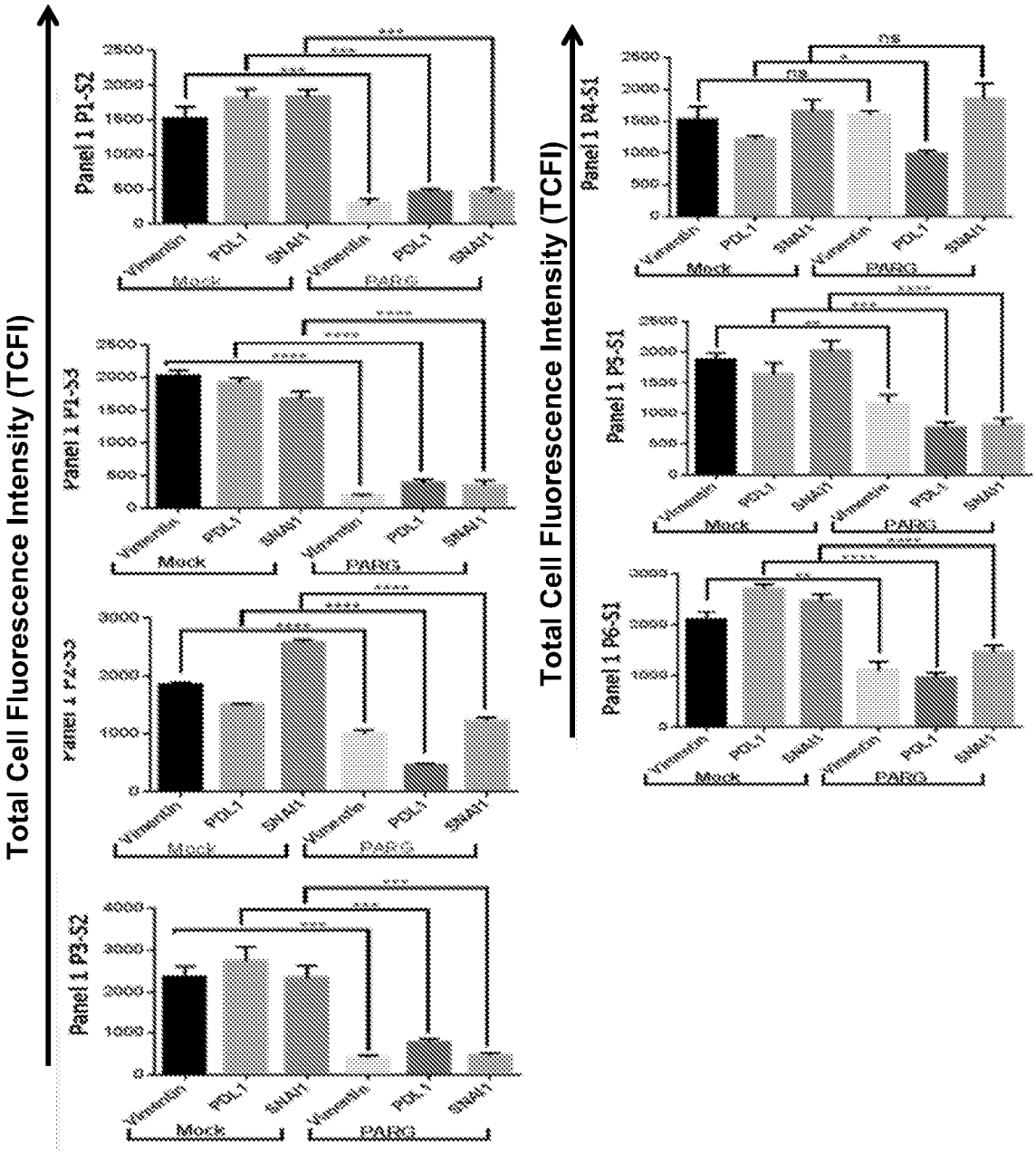


Figure 17A continued

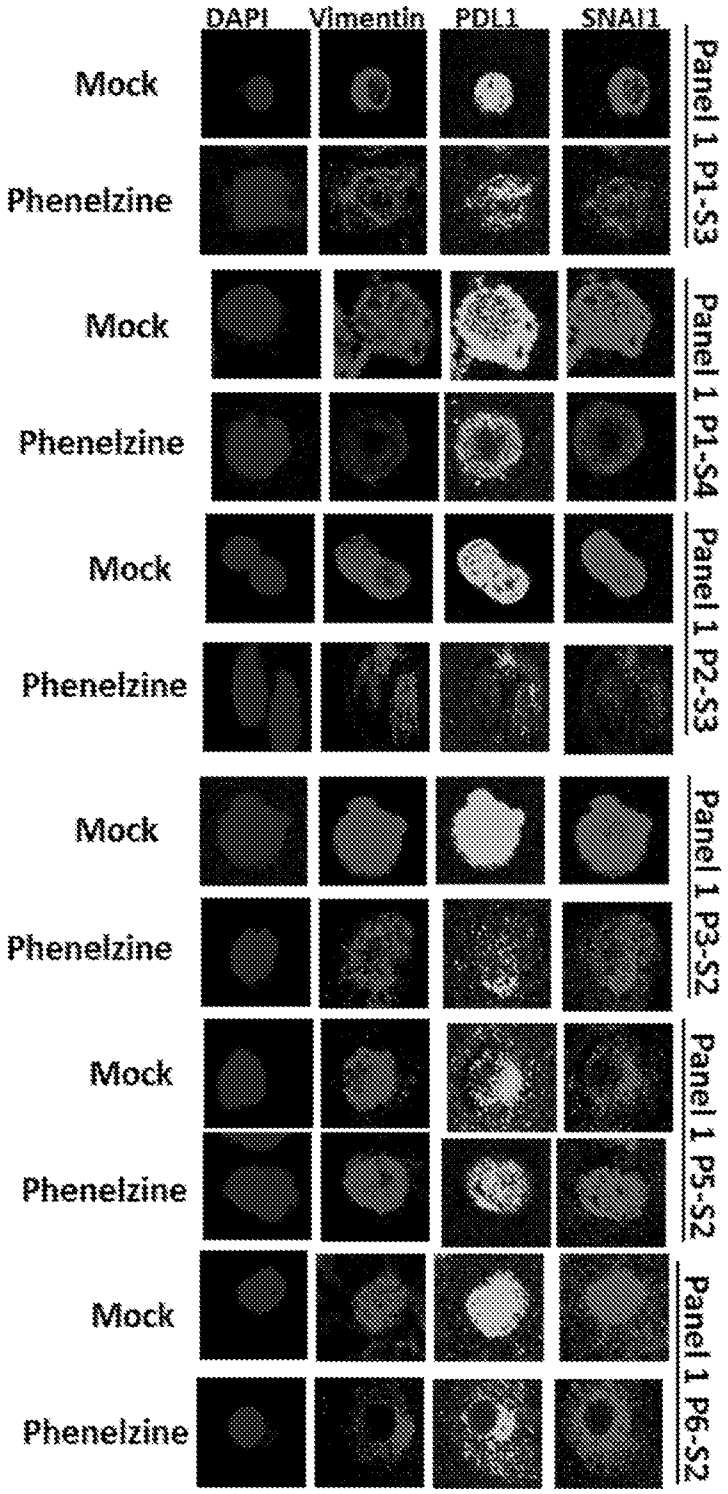

DAPI
Vimentin
PDL1
SNAI1
Mock
Phenelzine
Panel 1 P1-S3
Mock
Phenelzine
Panel 1 P1-S4
Mock
Phenelzine
Panel 1 P2-S3
Mock
Phenelzine
Panel 1 P3-S2
Mock
Phenelzine
Panel 1 P5-S2
Mock
Phenelzine
Panel 1 P6-S2

Figure 17B

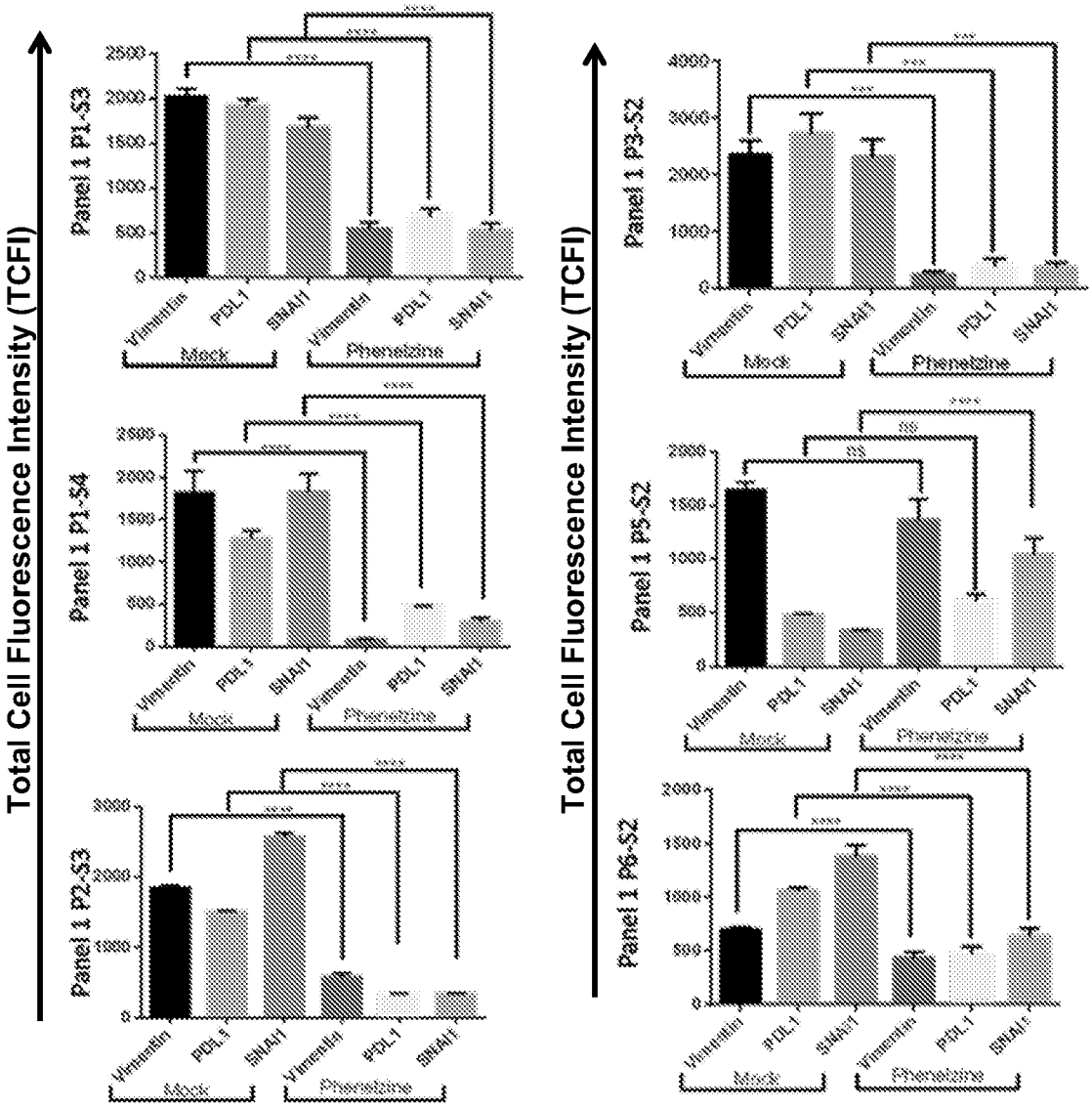


Figure 17B continued

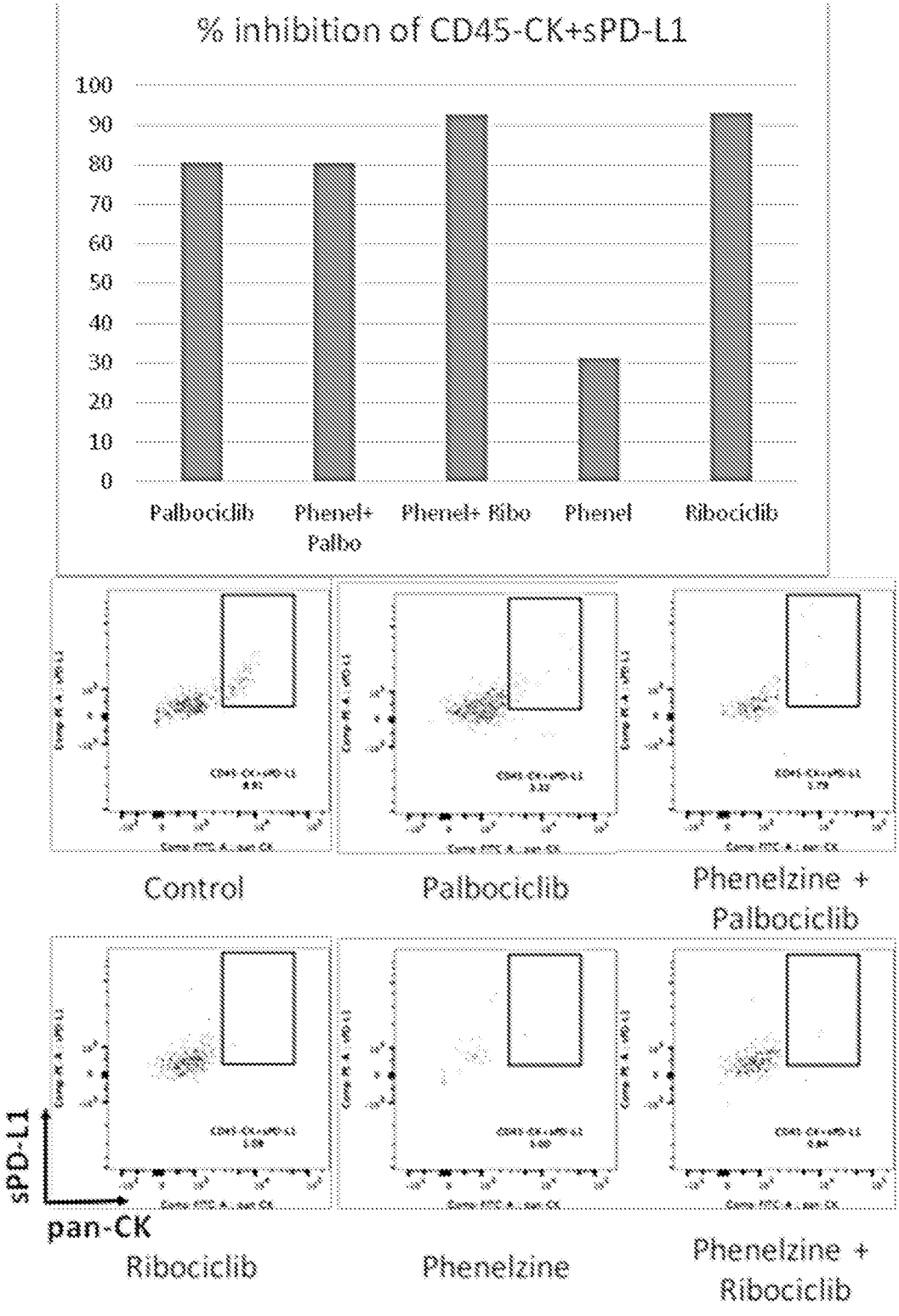

% inhibition of CD45-CK+sPD-L1
100
90
80
70
60
50
40
30
20
10
0
Palbociclib
Phenel+ Palbo
Phenel+ Ribo
Phenel
Ribociclib
Control
Palbociclib
Phenelzine + Palbociclib
sPD-L1
pan-CK
Ribociclib
Phenelzine
Phenelzine + Ribociclib

Figure 18A

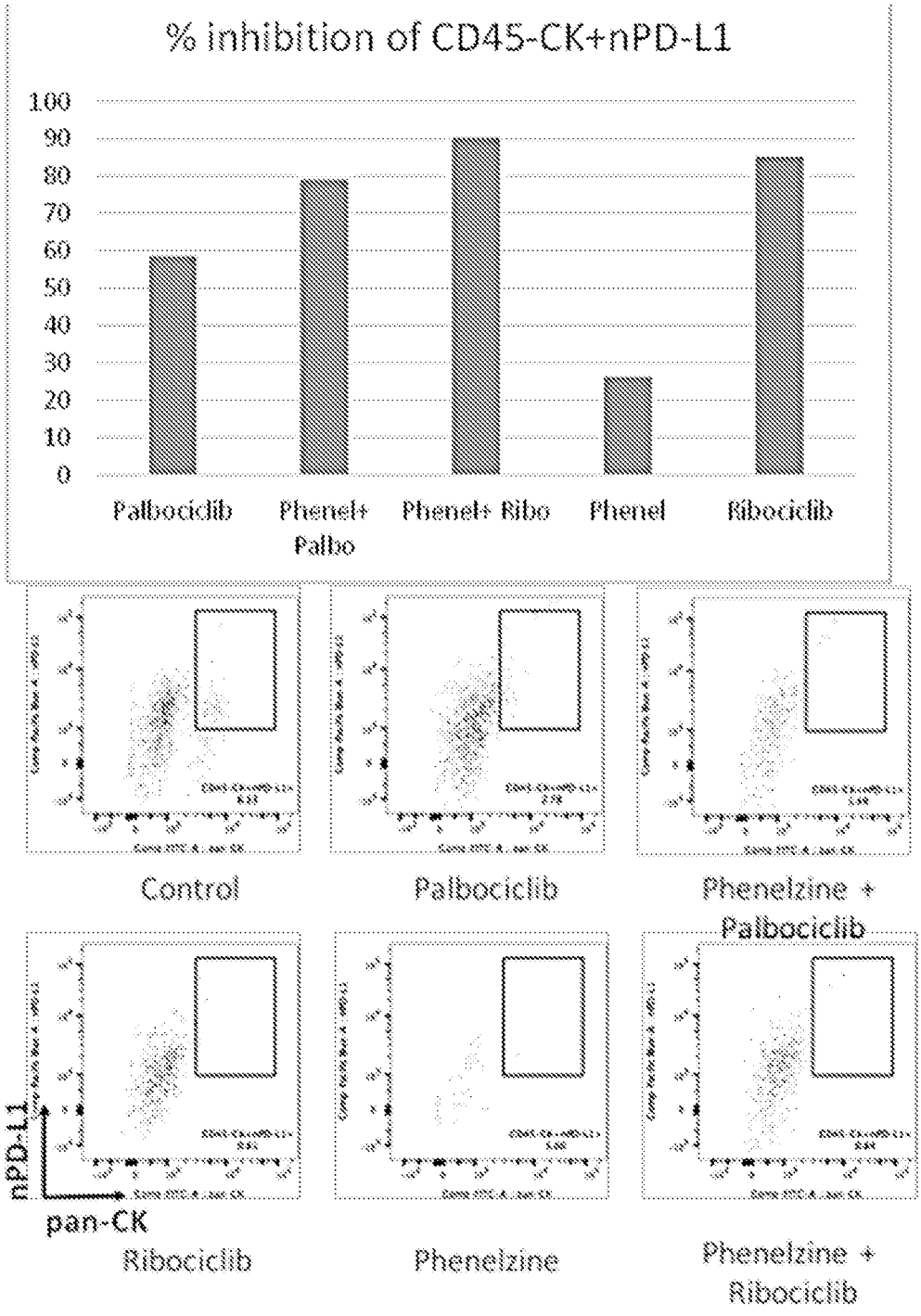
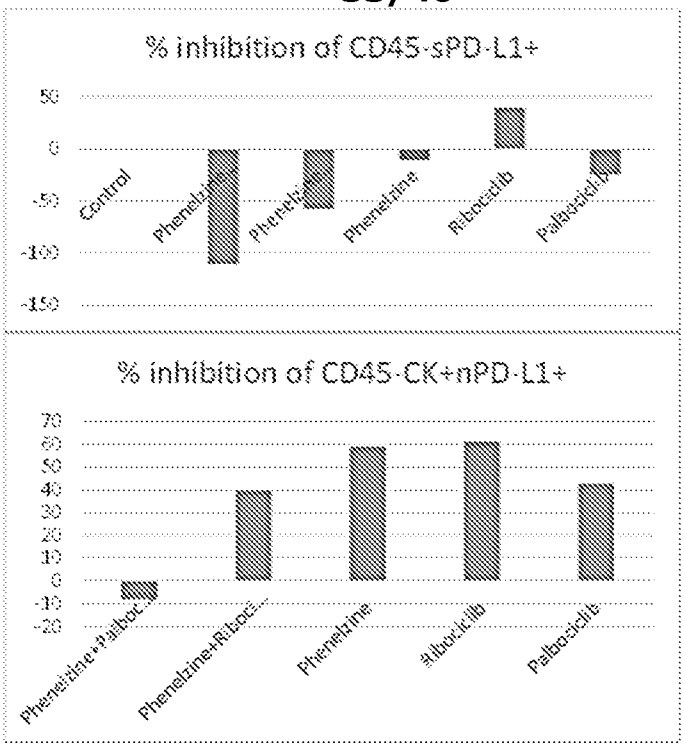
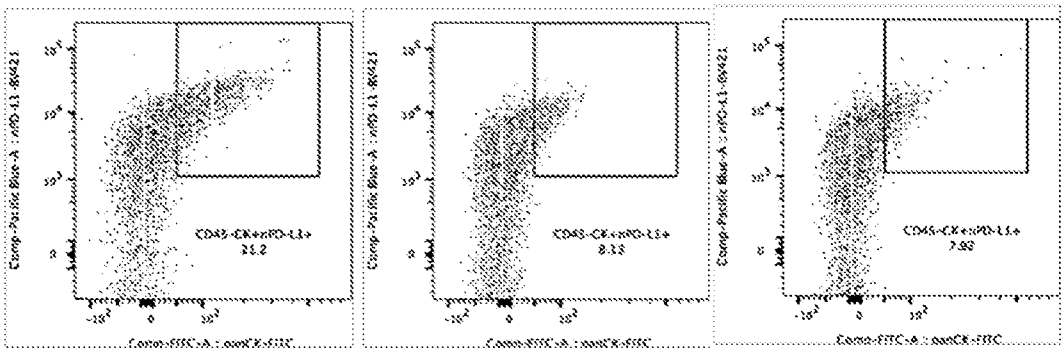


Figure 18A continued


% inhibition of CD45-sPD-L1+
50
0
-50
-100
-150
Control
Phenelzine
Phenelzine+Ribociclib
Phenelzine+Palbociclib
Ribociclib
Palbociclib
% inhibition of CD45-CK+nPD-L1+
70
60
50
40
30
20
10
0
-10
-20
Phenelzine+Palboc...
Phenelzine+Ribocic...
Phenelzine
Ribociclib
Palbociclib


Control
Phenelzine
Ribociclib

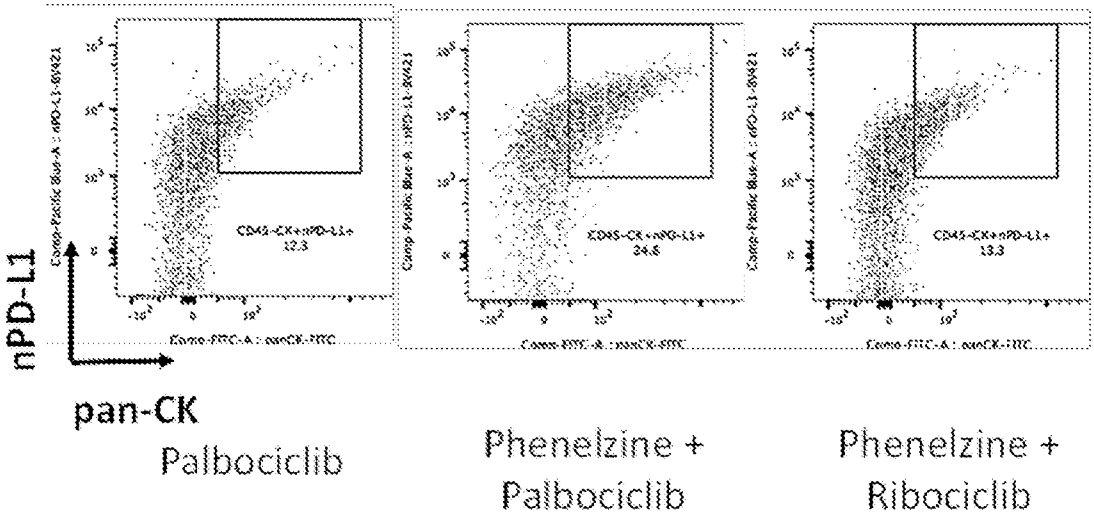

nPD-L1
pan-CK
Palbociclib
Phenelzine + Palbociclib
Phenelzine + Ribociclib

Figure 18B

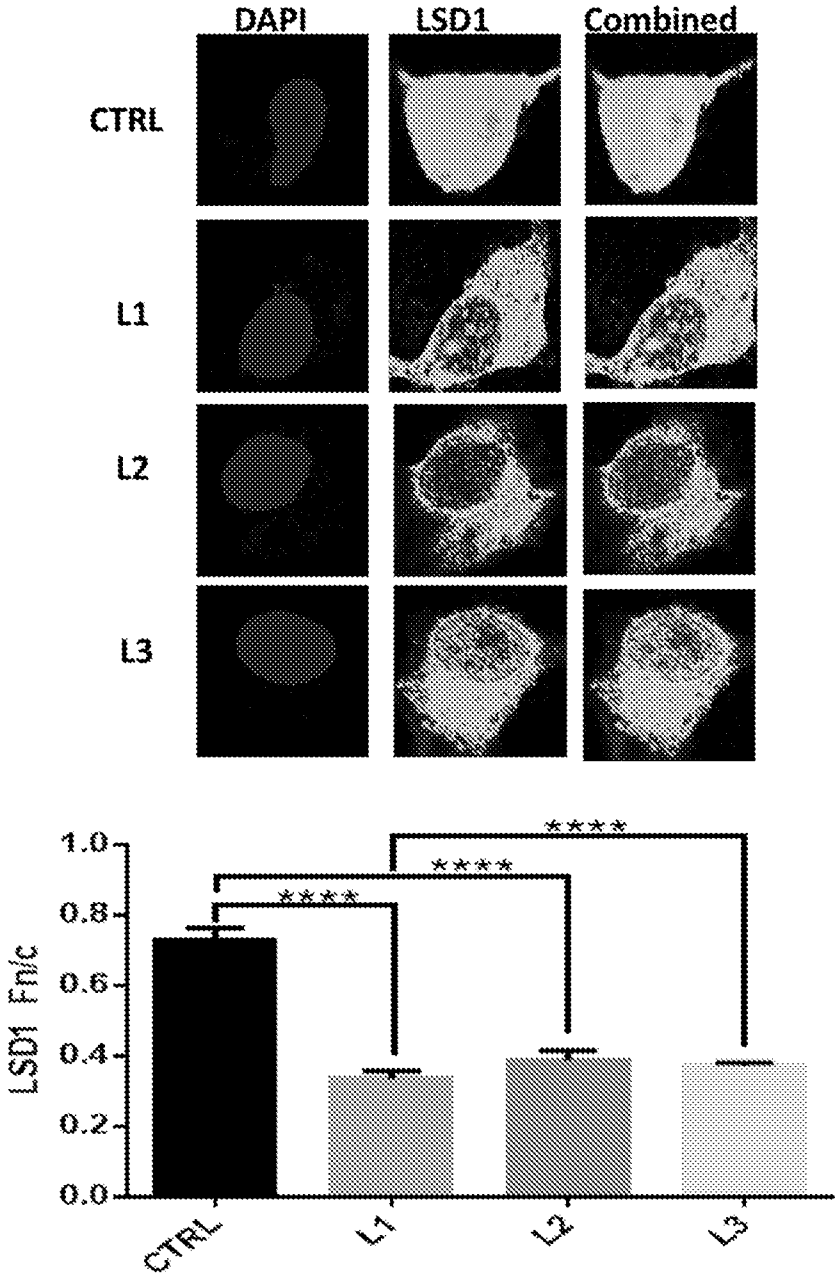

DAPI
LSD1
Combined
CTRL
L1
L2
L3
LSD1 Fn/c
1.0
0.8
0.6
0.4
0.2
0.0
****
****
****
CTRL
L1
L2
L3

Figure 19

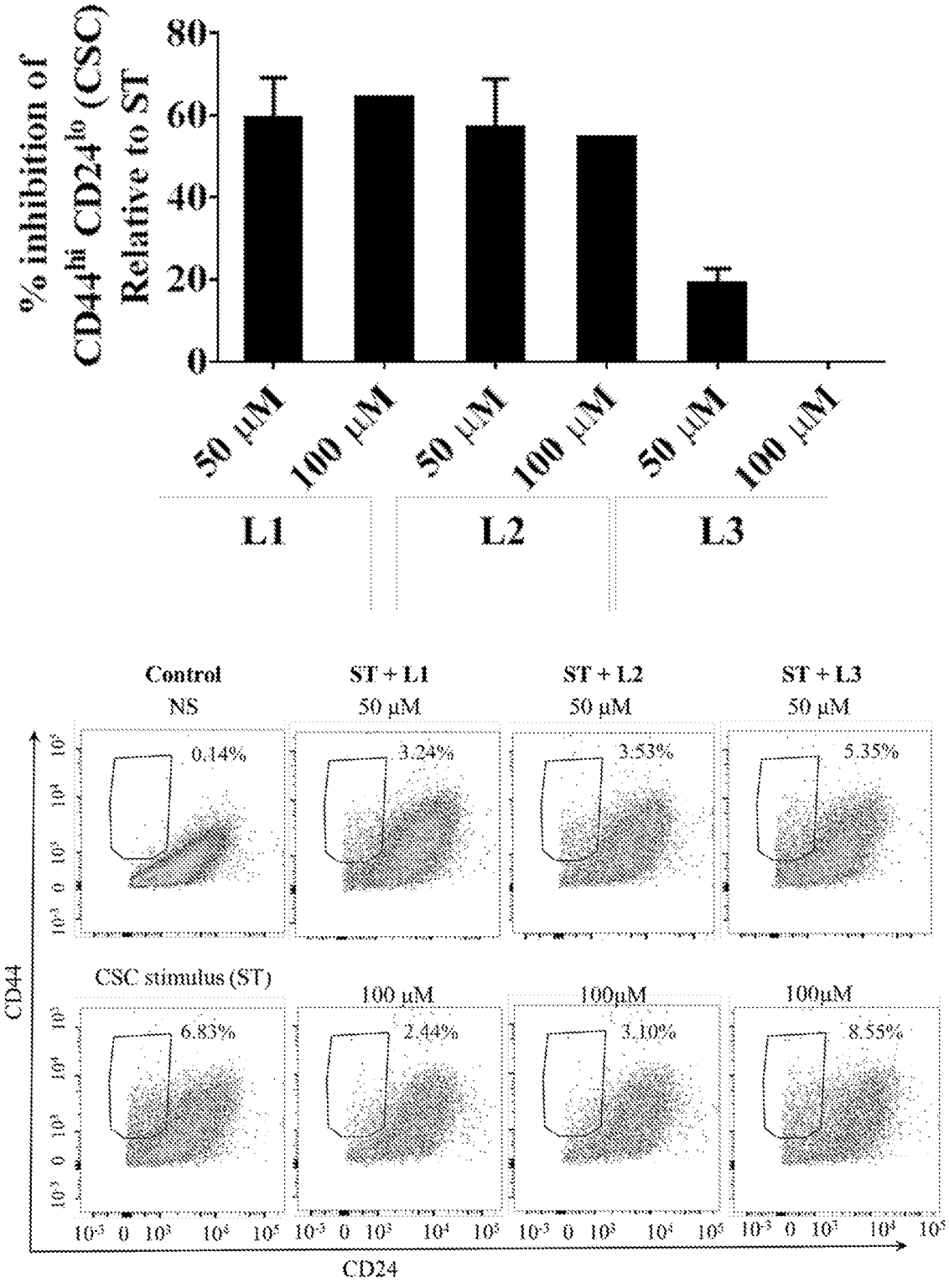

% inhibition of CD44hi CD24lo (CSC) Relative to ST
80
60
40
20
0
50 μM
100 μM
50 μM
100 μM
50 μM
100 μM
L1
L2
L3
Control
NS
ST + L1
50 μM
ST + L2
50 μM
ST + L3
50 μM
0.14%
3.24%
3.53%
5.35%
CSC stimulus (ST)
100 μM
100μM
100μM
6.83%
2.44%
3.30%
8.55%
CD44
CD24

Figure 20

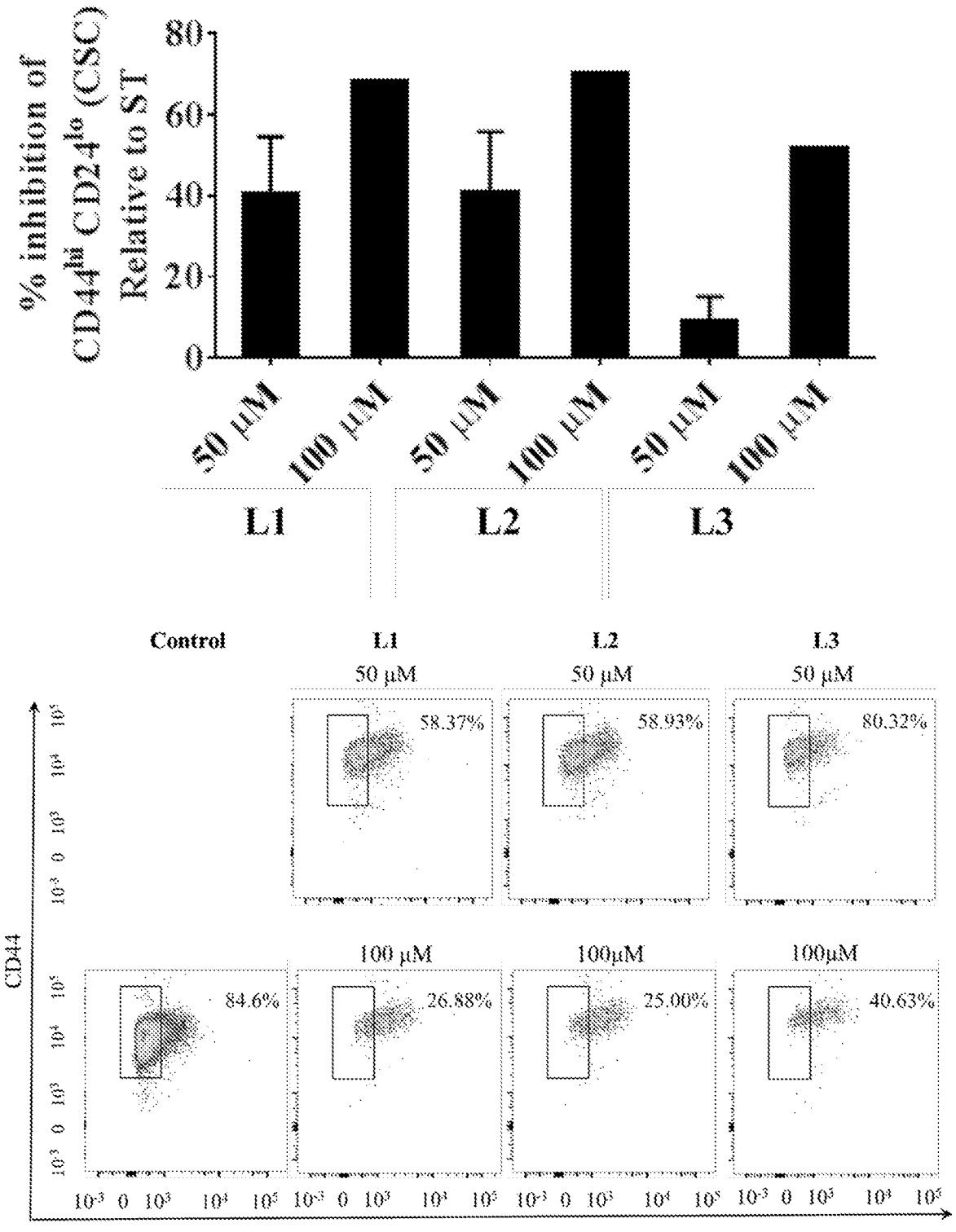
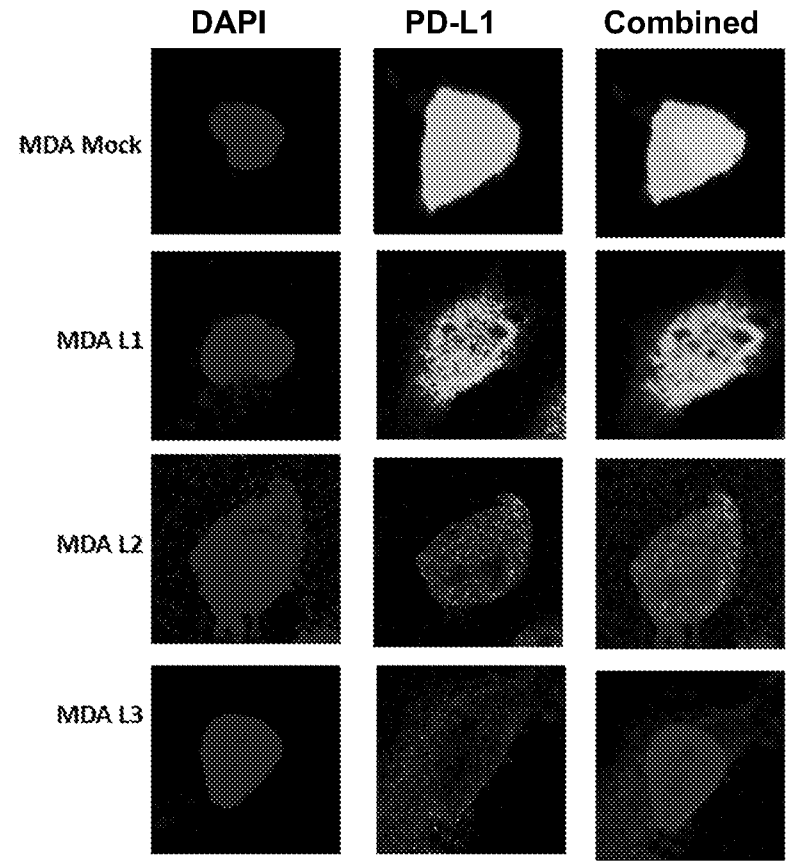

% inhibition of CD44hi CD24lo (CSC) Relative to ST
80
60
40
20
0
50 μM
100 μM
50 μM
100 μM
50 μM
100 μM
L1
L2
L3
Control
L1
L2
L3
50 μM
50 μM
50 μM
58.37%
58.93%
80.32%
100 μM
100μM
100μM
84.6%
26.88%
25.00%
40.63%
CD44
10⁵
10⁴
10³
0
10³
10⁴
10⁵

Figure 21


DAPI
PD-L1
Combined
MDA Mock
MDA L1
MDA L2
MDA L3

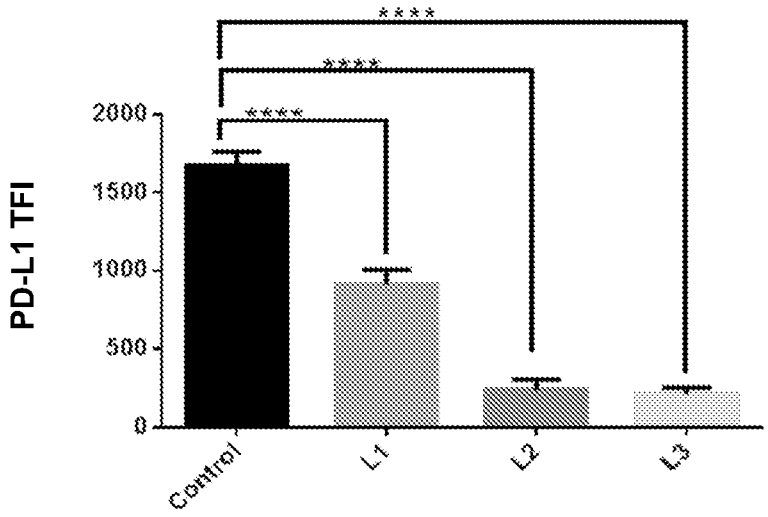
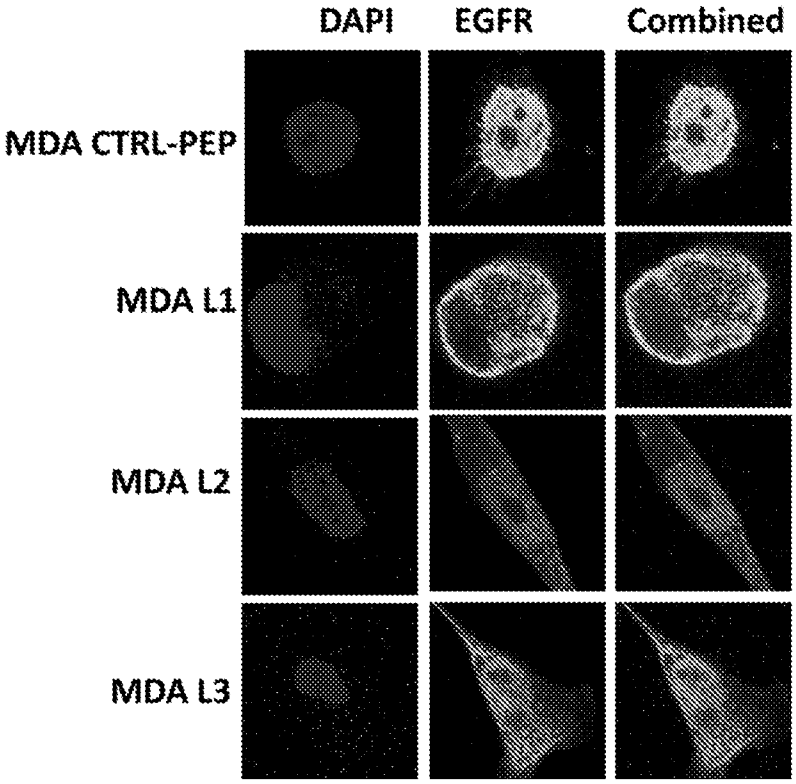

PD-L1 TFI
2000
1500
1000
500
0
****
****
****
Control
L1
L2
L3

Figure 22


DAPI
EGFR
Combined
MDA CTRL-PEP
MDA L1
MDA L2
MDA L3

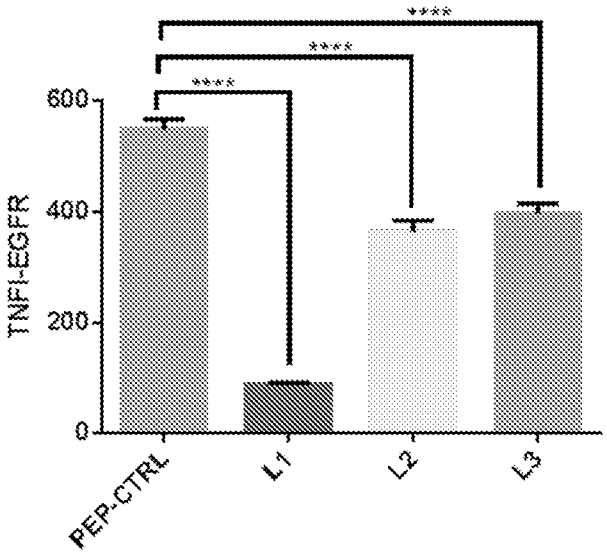
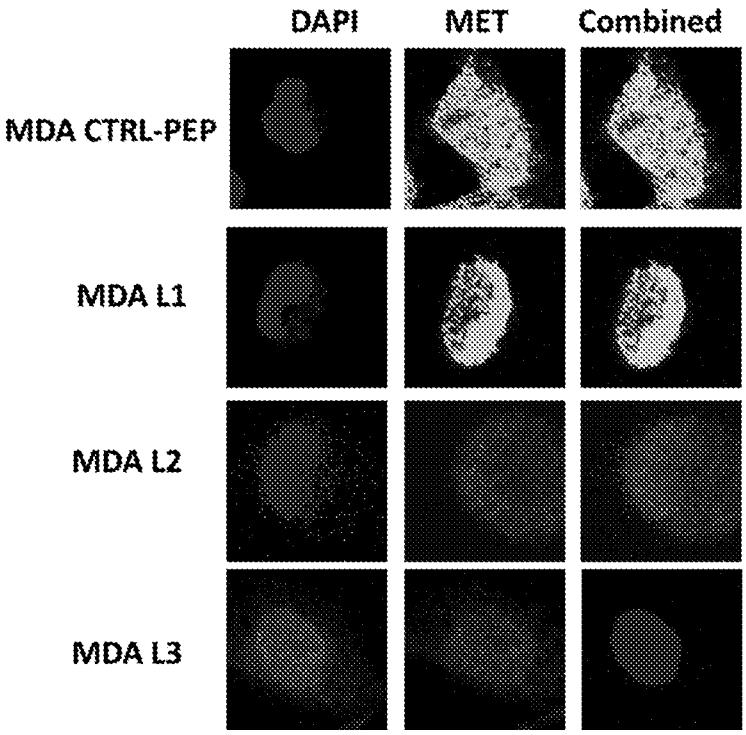

****
****
****
600
400
200
0
TNFI-EGFR
PEP-CTRL
L1
L2
L3

Figure 23


DAPI
MET
Combined
MDA CTRL-PEP
MDA L1
MDA L2
MDA L3

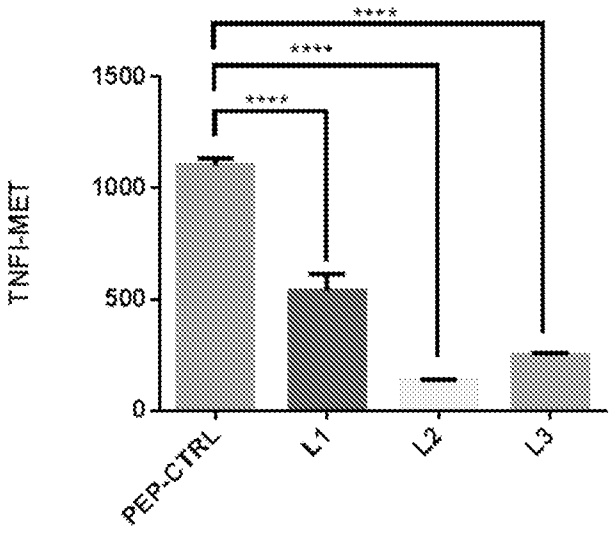
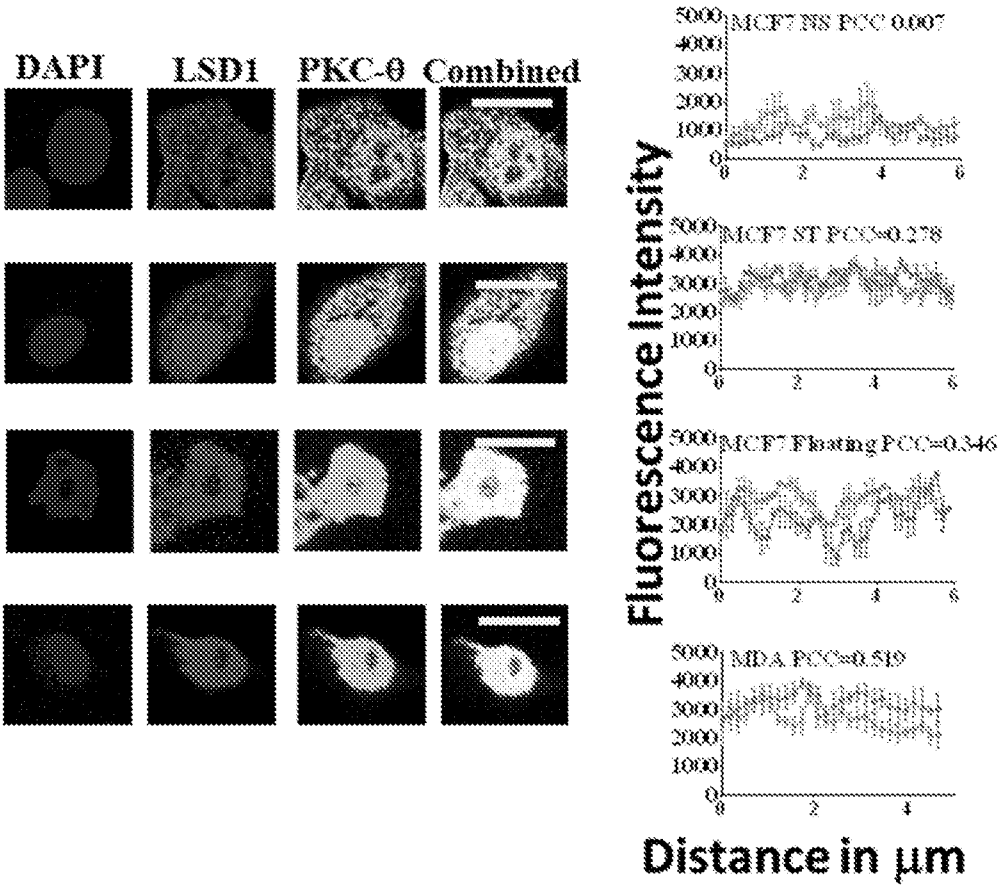

****
****
****
1500
1000
500
0
TNFI-MET
PEP-CTRL
L1
L2
L3

Figure 24


DAPI
LSD1
PKC-θ
Combined
MCF7 NS PCC 0.007
MCF7 ST PCC=0.278
MCF7 Floating PCC=0.346
MDA PCC=0.519
Fluorescence Intensity
Distance in µm

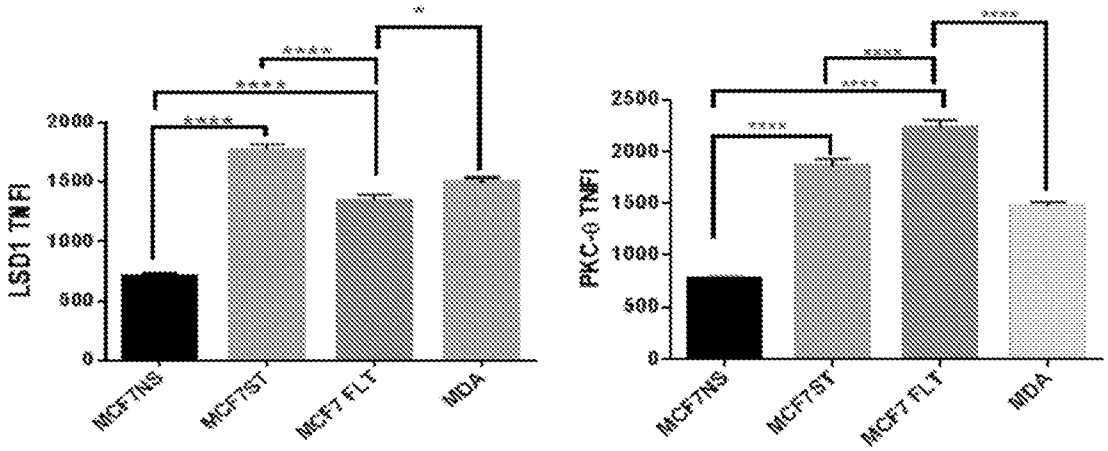
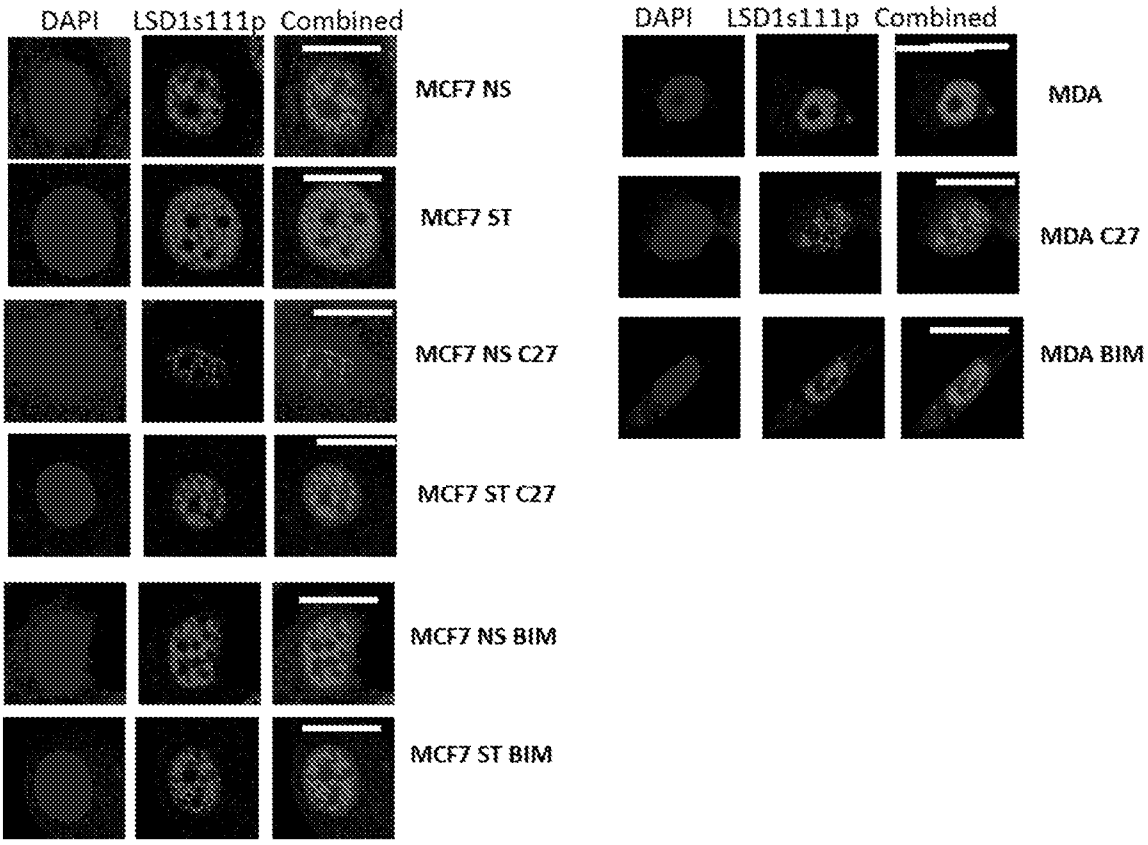

LSD1 TNFI
PKC-θ TNFI
MCF7NS
MCF7ST
MCF7 FLT
MDA

Figure 25


DAPI
LSD1s111p
Combined
MCF7 NS
MCF7 ST
MCF7 NS C27
MCF7 ST C27
MCF7 NS BIM
MCF7 ST BIM
DAPI
LSD1s111p
Combined
MDA
MDA C27
MDA BIM

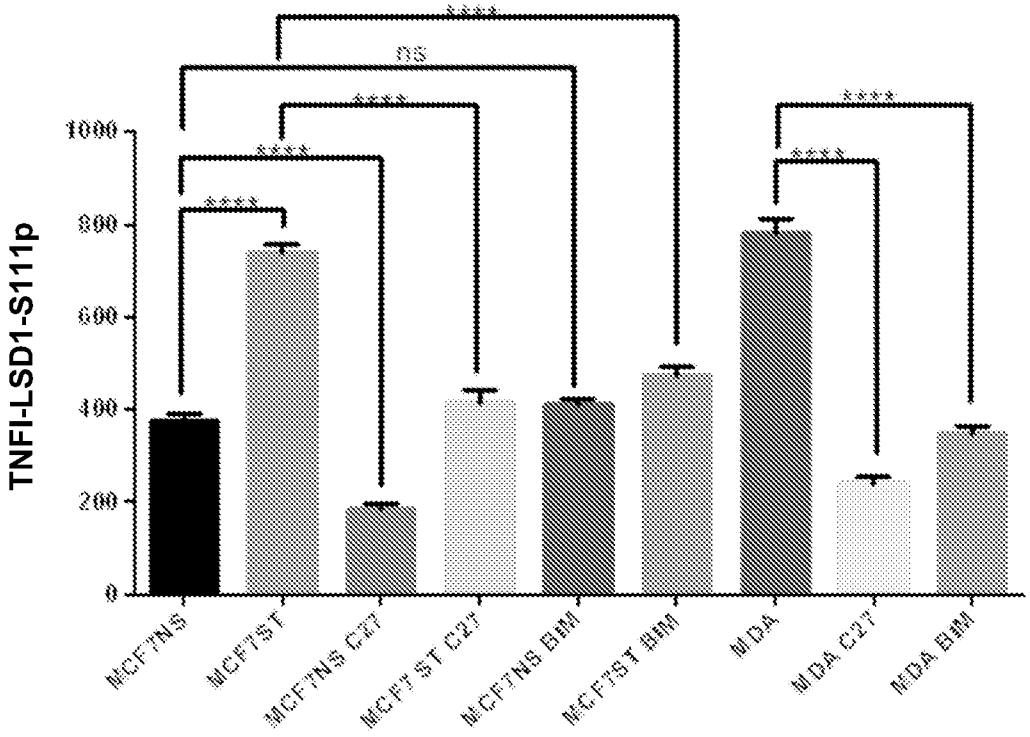

TNFI-LSD1-S111p
1000
800
600
400
200
0
****
NS
MCF7NS
MCF7ST
MCF7NS C27
MCF7ST C27
MCF7NS BIM
MCF7ST BIM
MDA
MDA C27
MDA BIM

Figure 26

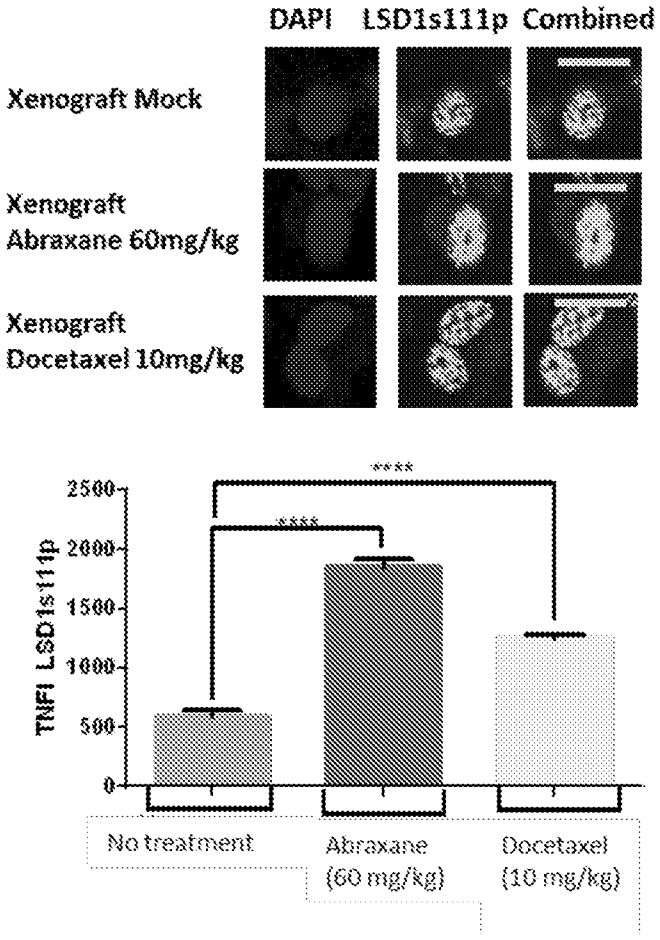

DAPI
LSD1s111p
Combined
Xenograft Mock
Xenograft
Abraxane 60mg/kg
Xenograft
Docetaxel 10mg/kg
TNFI LSD1s111p
2500
2000
1500
1000
500
0
****
****
No treatment
Abraxane
(60 mg/kg)
Docetaxel
(10 mg/kg)

Figure 27

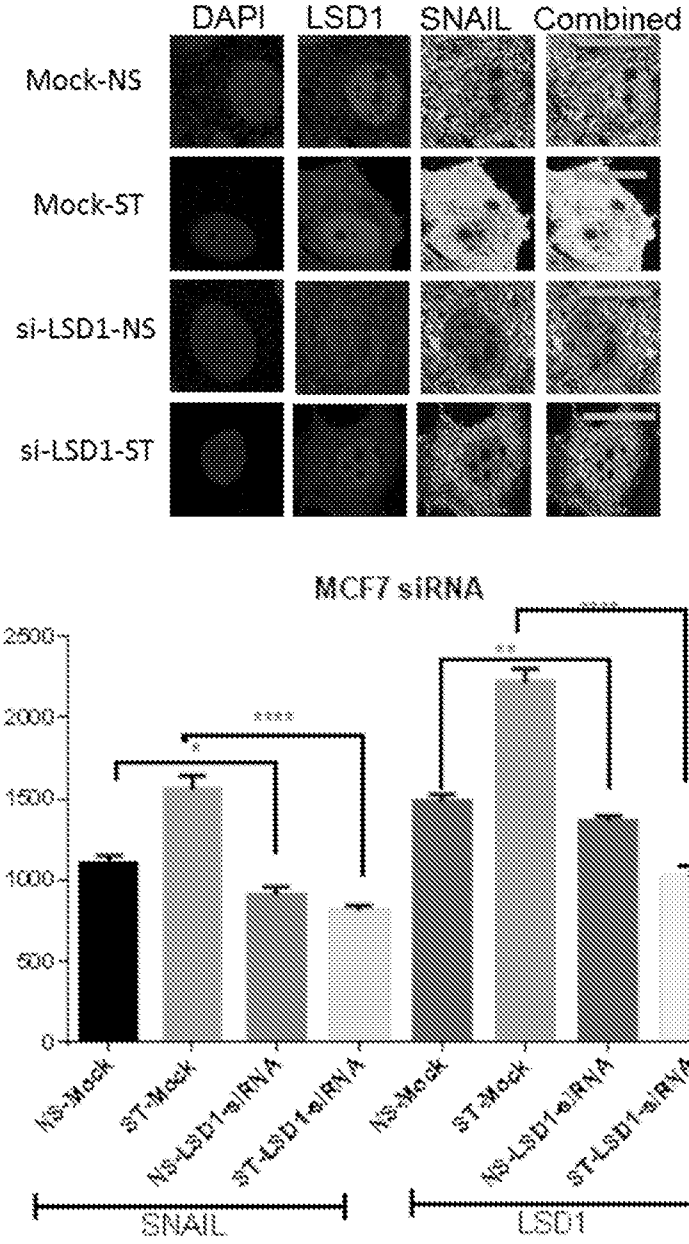
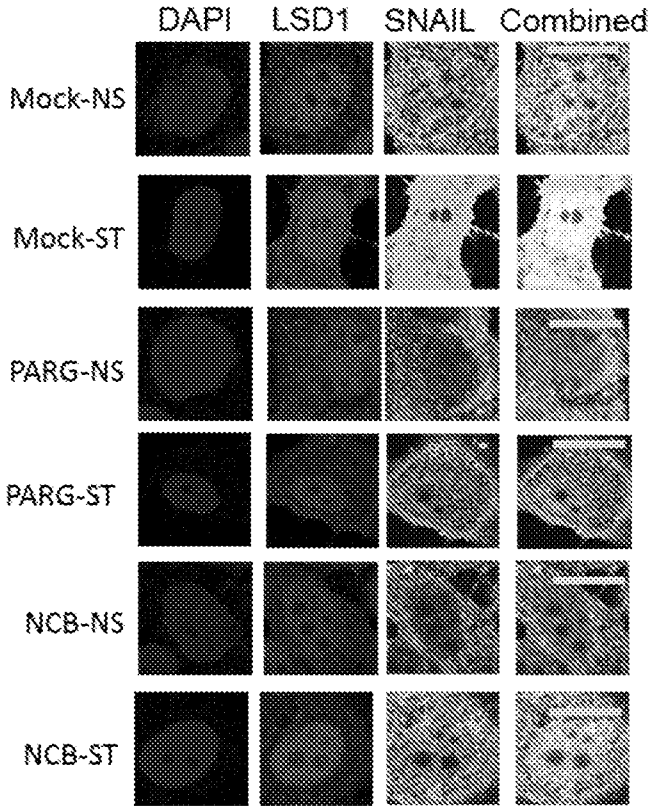

DAPI
LSD1
SNAIL
Combined
Mock-NS
Mock-ST
si-LSD1-NS
si-LSD1-ST
MCF7 siRNA
Total Nuclear Fluorescence
2500
2000
1500
1000
500
0
*
****
**
****
NS-Mock
ST-Mock
NS-LSD1-siRNA
ST-LSD1-siRNA
NS-Mock
ST-Mock
NS-LSD1-siRNA
ST-LSD1-siRNA
SNAIL
LSD1

Figure 28


DAPI
LSD1
SNAIL
Combined
Mock-NS
Mock-ST
PARG-NS
PARG-ST
NCB-NS
NCB-ST

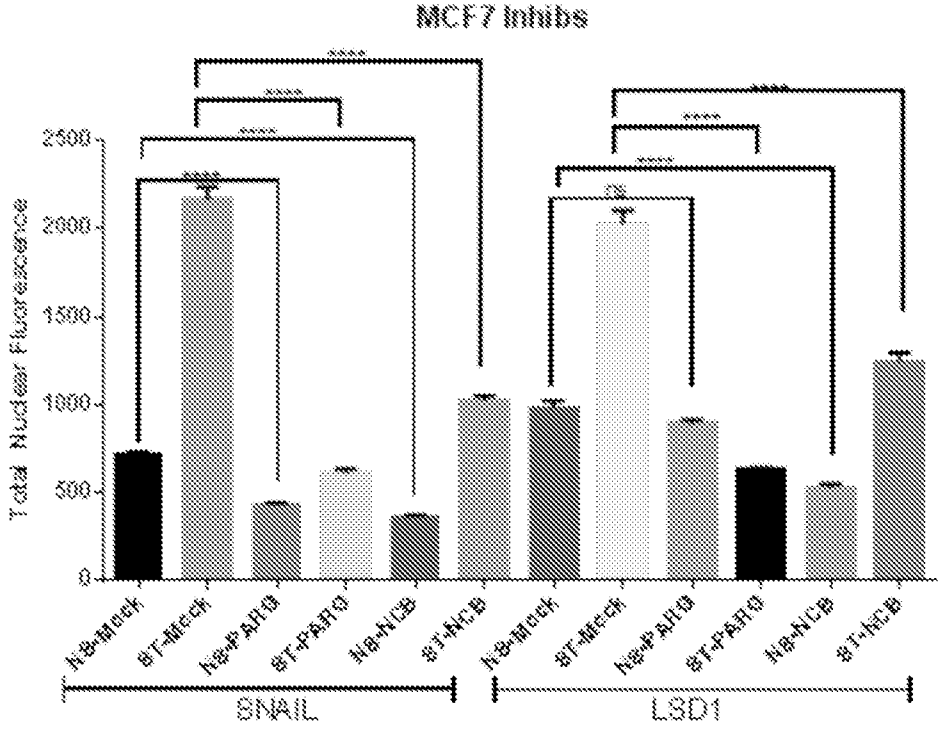

MCF7 Inhibs
Total Nuclear Fluorescence
2500
2000
1500
1000
500
0
ns
SNAIL
LSD1

Figure 29

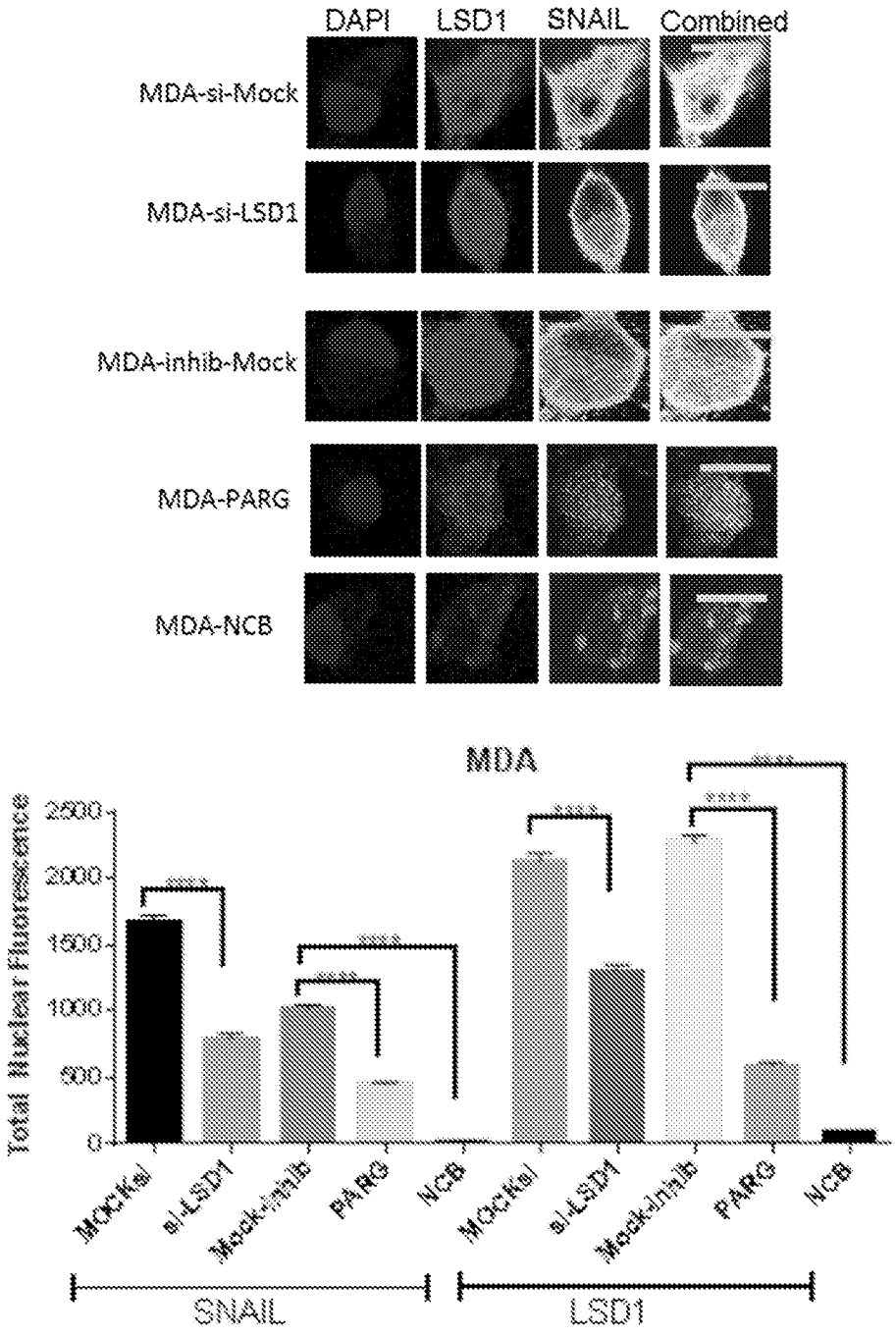

DAPI
LSD1
SNAIL
Combined
MDA-si-Mock
MDA-si-LSD1
MDA-inhib-Mock
MDA-PARG
MDA-NCB
MDA
Total Nuclear Fluorescence
2500
2000
1500
1000
500
0
Mock(si)
si-LSD1
Mock-inhib
PARG
NCB
SNAIL
LSD1

Figure 30

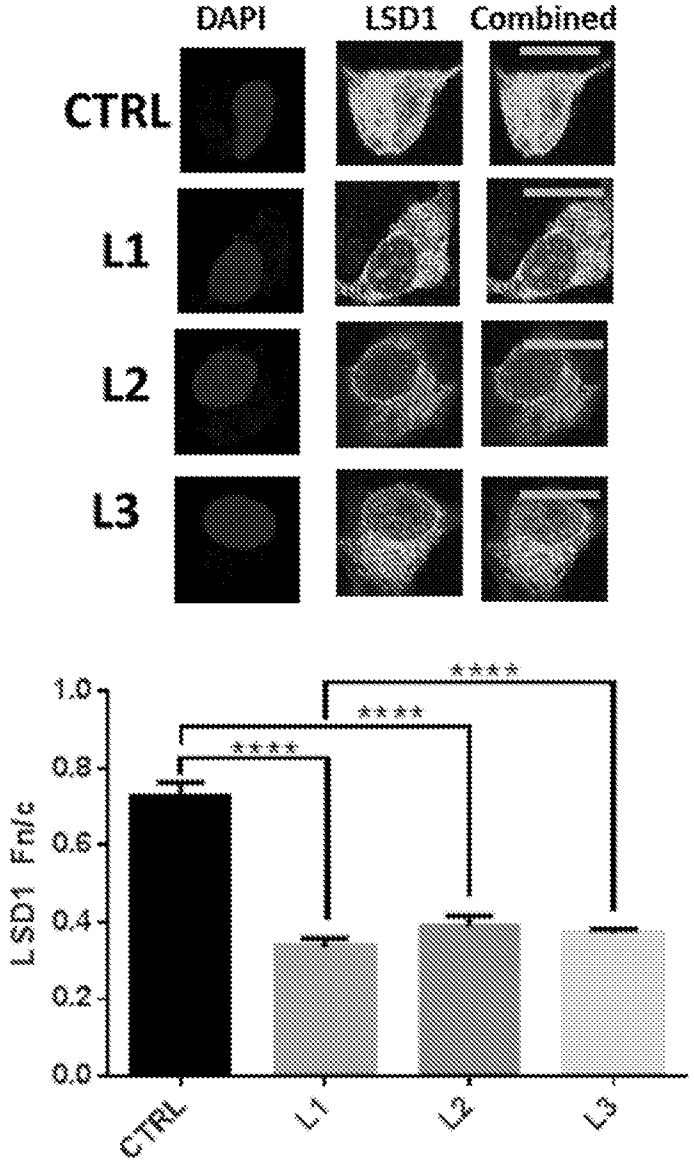

DAPI
LSD1
Combined
CTRL
L1
L2
L3
LSD1 FMI
1.0
0.8
0.6
0.4
0.2
0.0
****
****
****
CTRL
L1
L2
L3

Figure 31