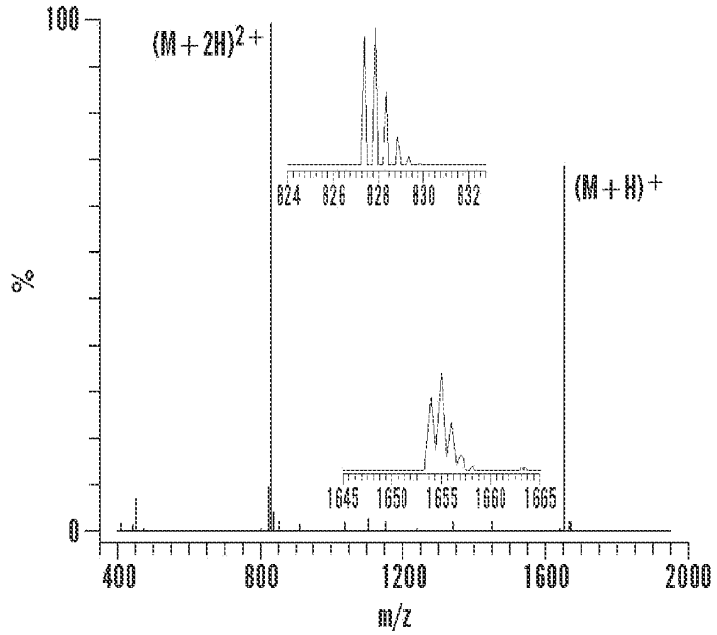

100
%
0
(M+2H)2+
(M+H)+
824 826 828 830 832
1645 1650 1655 1660 1665
400 800 1200 1600 2000
m/z

FIG. 1A

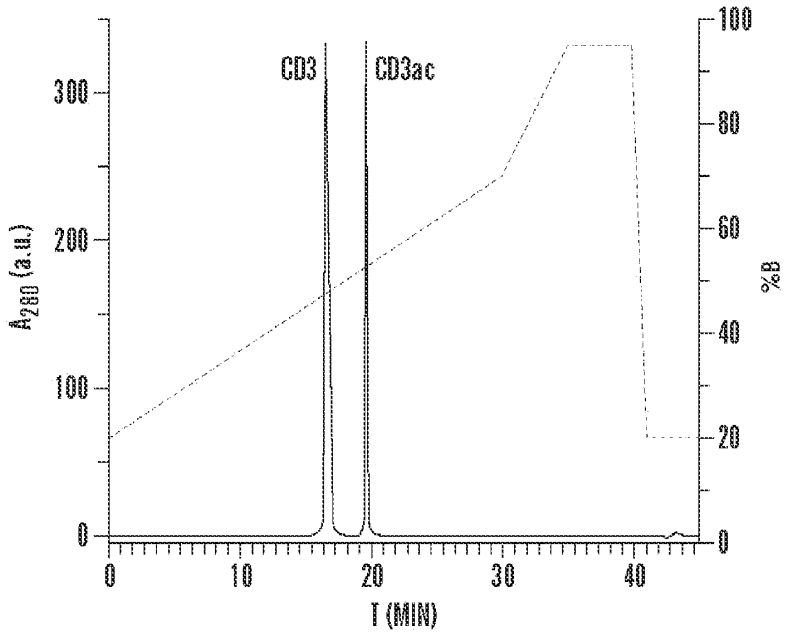

CD3
CD3ac
300
200
100
0
A280 (a.u.)
100
80
60
40
20
0
%B
0 10 20 30 40
T (MIN)

FIG. 1B

FIG. 2A

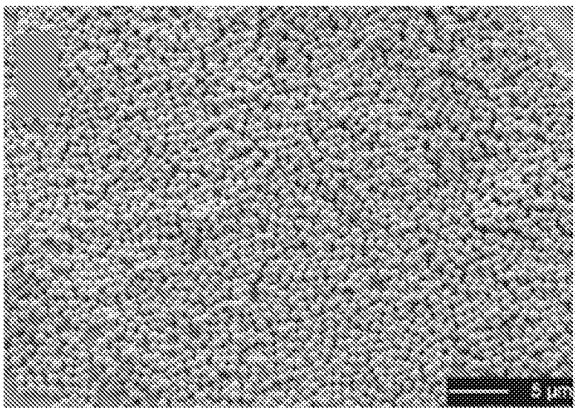


FIG. 2B

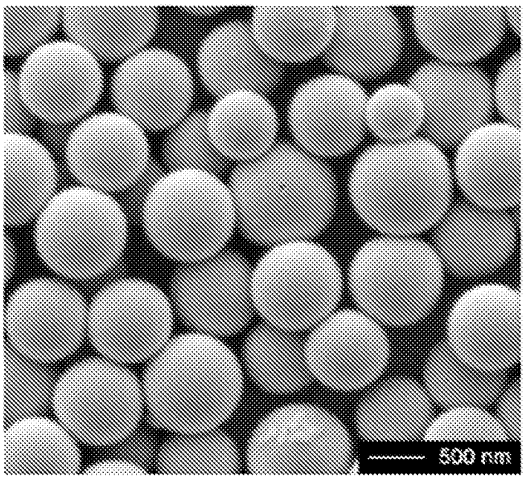
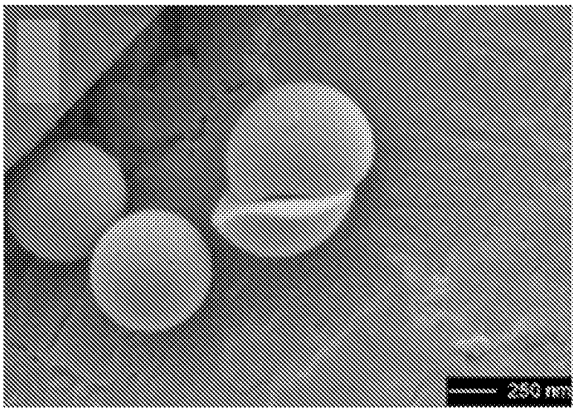


FIG. 2C



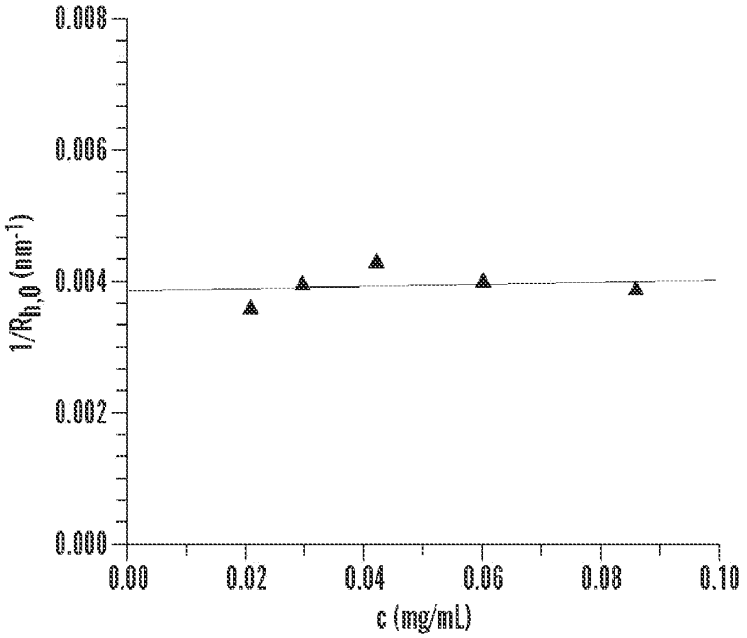

0.008
0.006
0.004
0.002
0.000
1/Rh,0 (nm-1)
0.00
0.02
0.04
0.06
0.08
0.10
c (mg/mL)

FIG. 3A

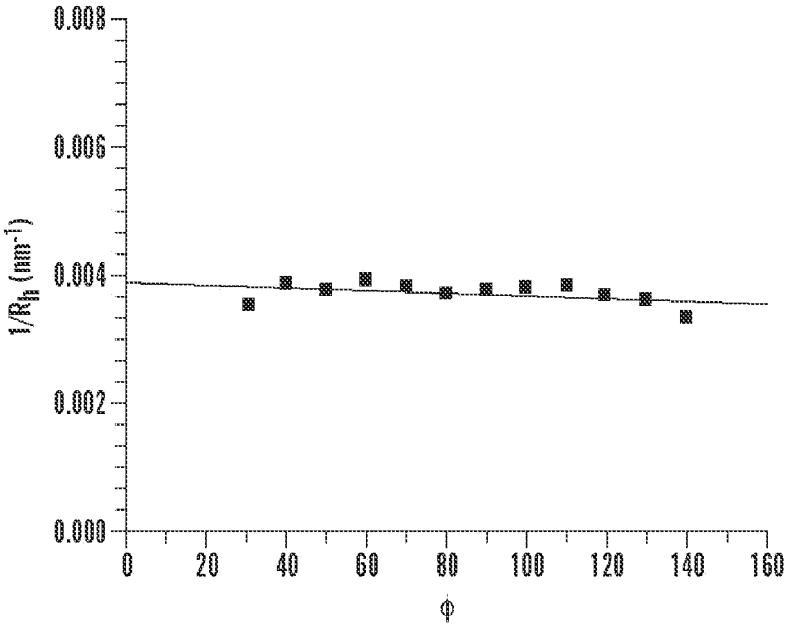

0.008
0.006
0.004
0.002
0.000
1/Rh (nm-1)
0
20
40
60
80
100
120
140
160
φ

FIG. 3B

FIG. 4

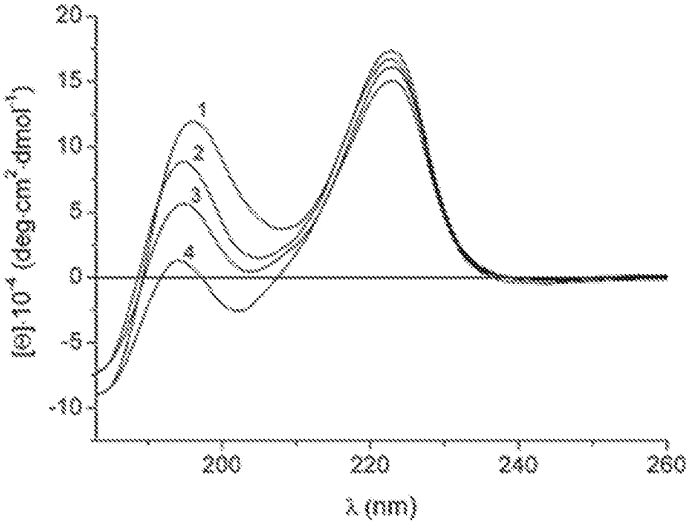

20
15
10
5
0
-5
-10
[θ].10⁻⁴ (deg.cm².dmol⁻¹)
1
2
3
4
200
220
240
260
λ (nm)

FIG. 5A

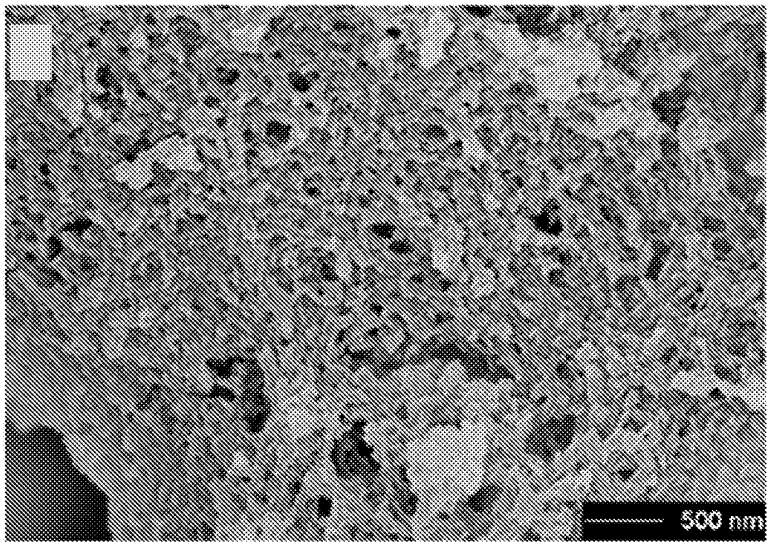

500 nm

FIG. 5B

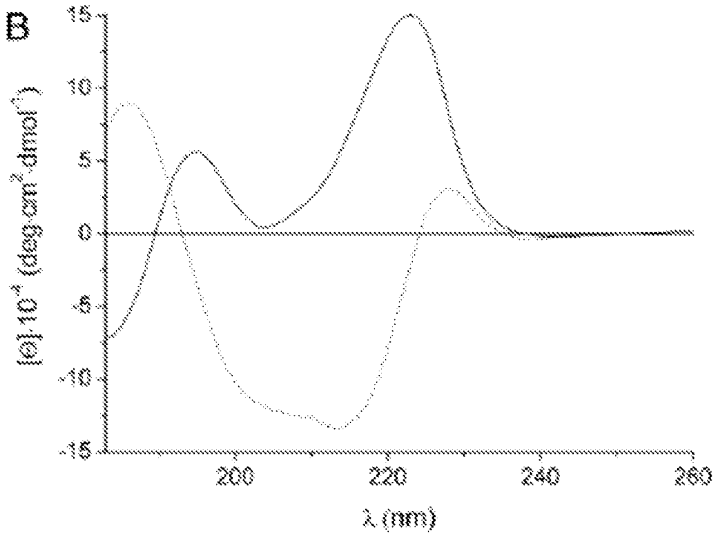


FIG. 6A

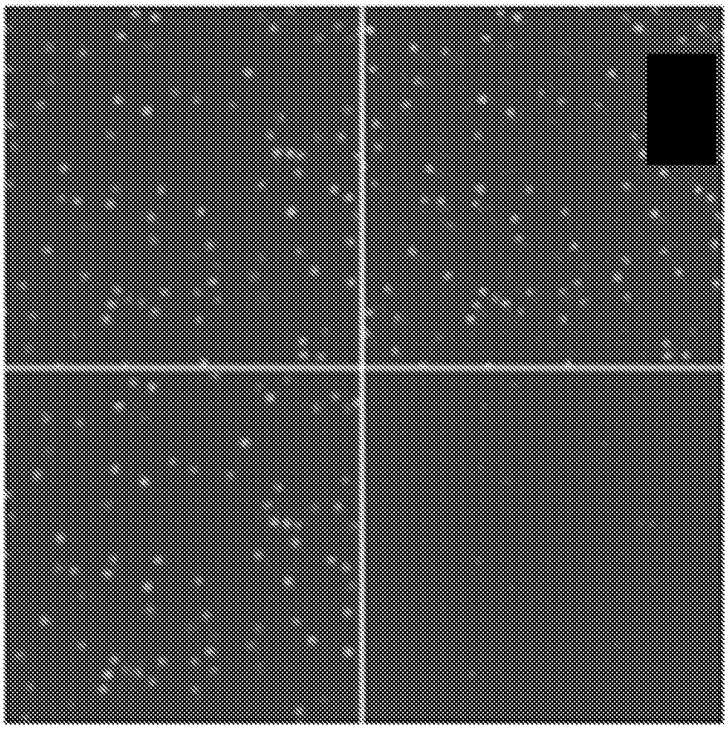


FIG. 6B

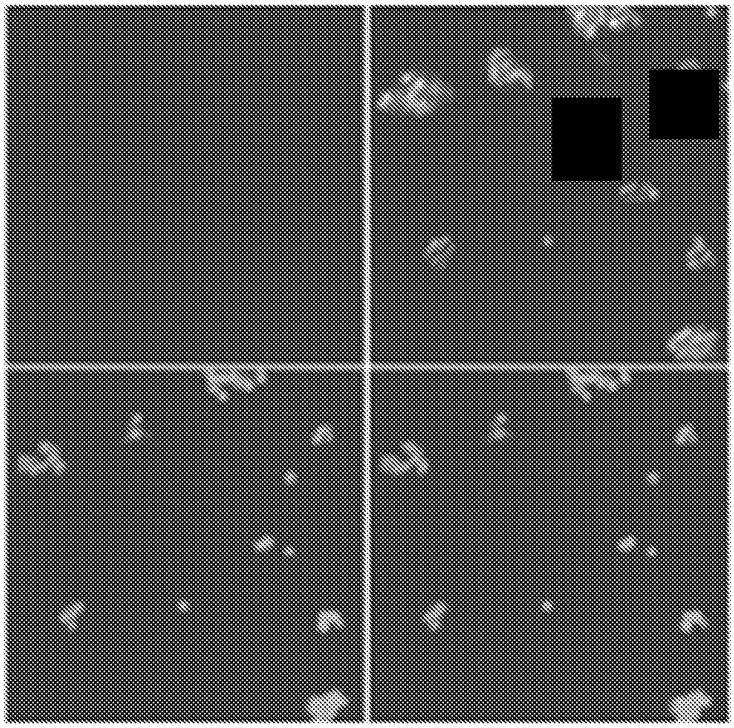
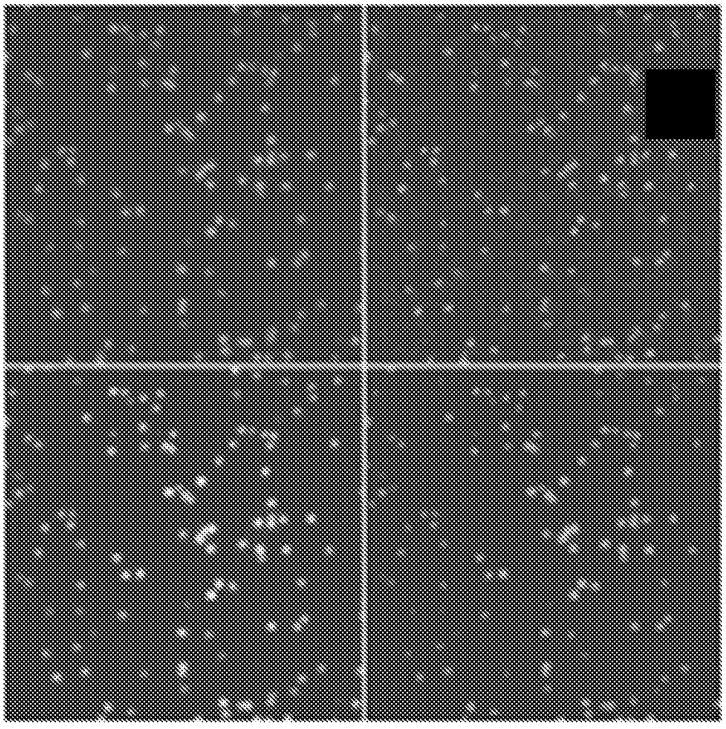


FIG. 6C



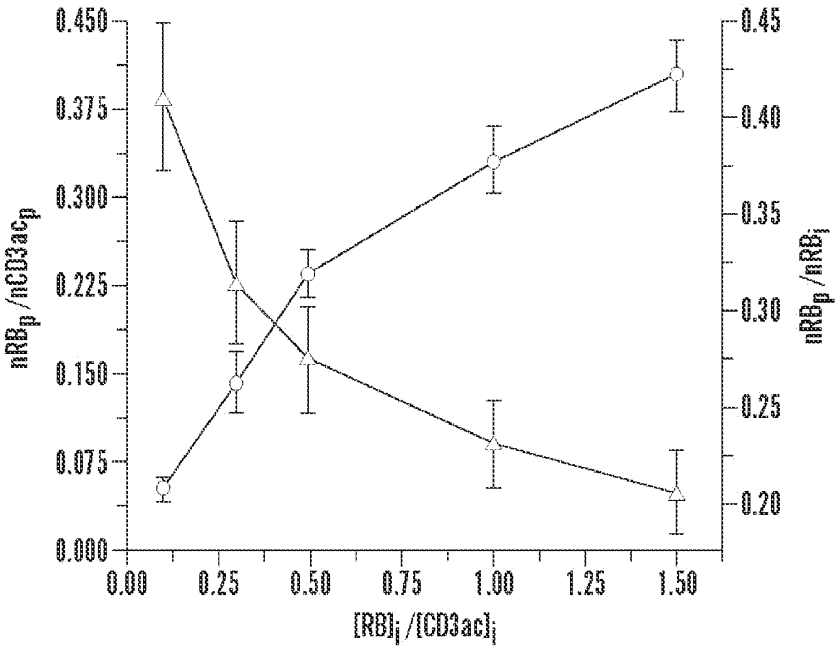

0.450
0.375
0.300
0.225
0.150
0.075
0.000
nRBp /nCD3acp
0.45
0.40
0.35
0.30
0.25
0.20
nRBp /nRBi
0.00
0.25
0.50
0.75
1.00
1.25
1.50
[RB]i /[CD3ac]i

FIG. 7A

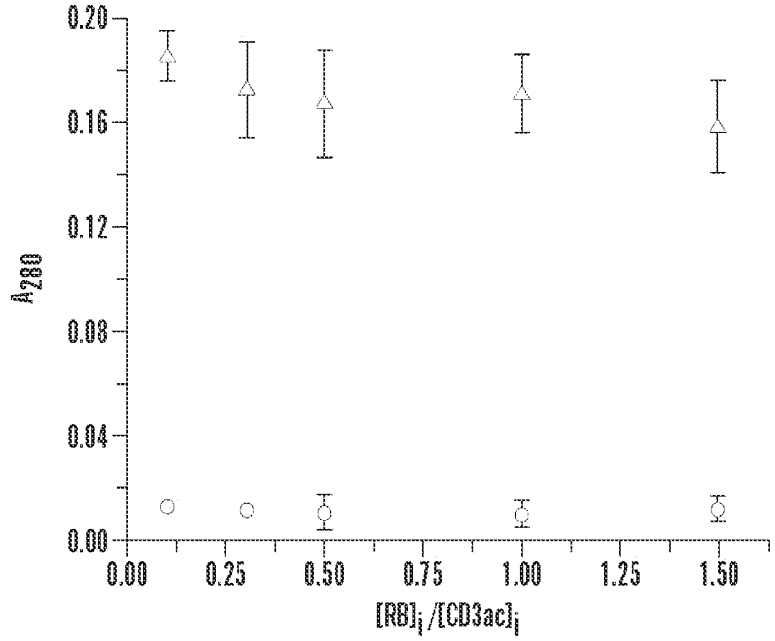

0.20
0.16
0.12
0.08
0.04
0.00
A280
0.00
0.25
0.50
0.75
1.00
1.25
1.50
[RB]i /[CD3ac]i

FIG. 7B

FIG. 8A

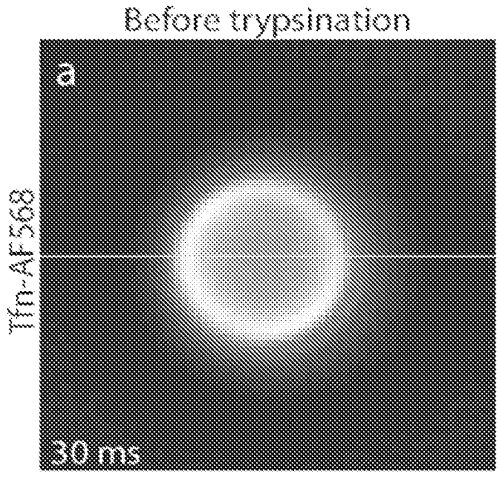


FIG. 8D

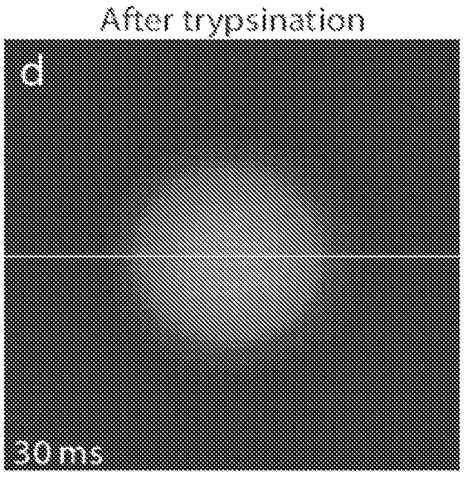


FIG. 8B

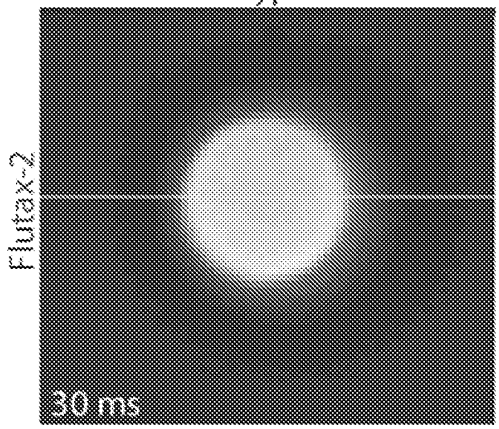


FIG. 8E

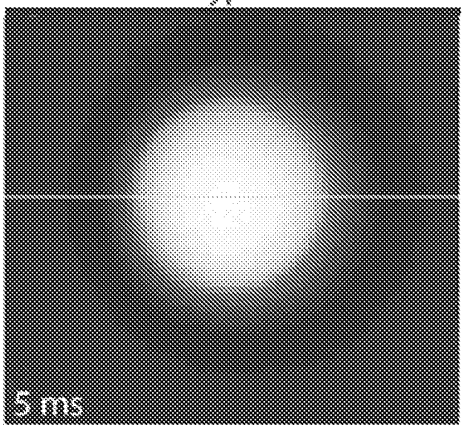


FIG. 8C

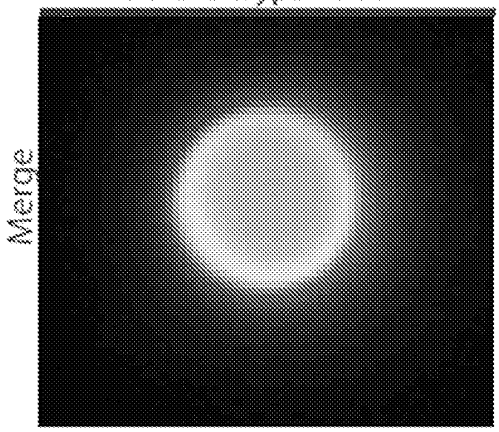


FIG. 8F

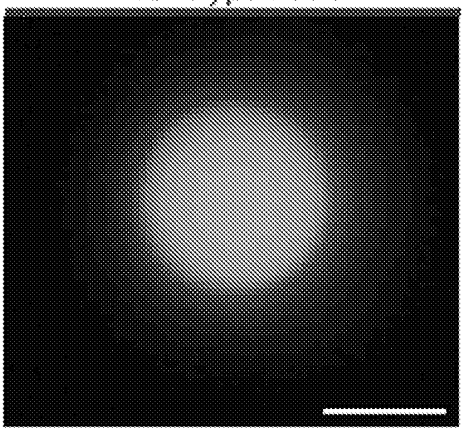


FIG. 8G

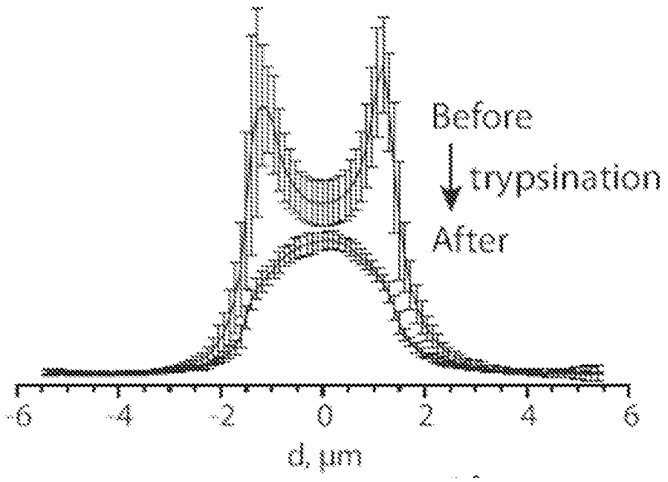


FIG. 8H

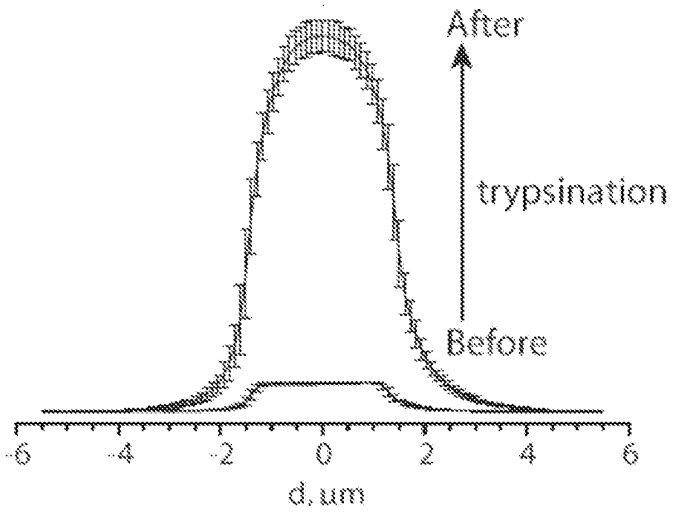
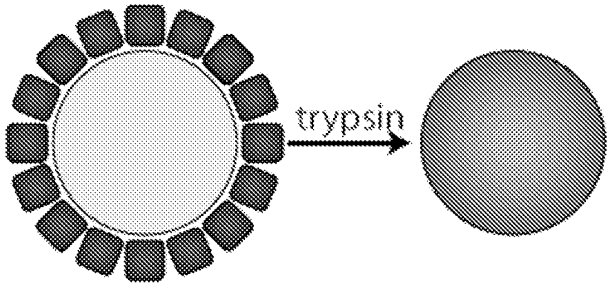


FIG. 8I



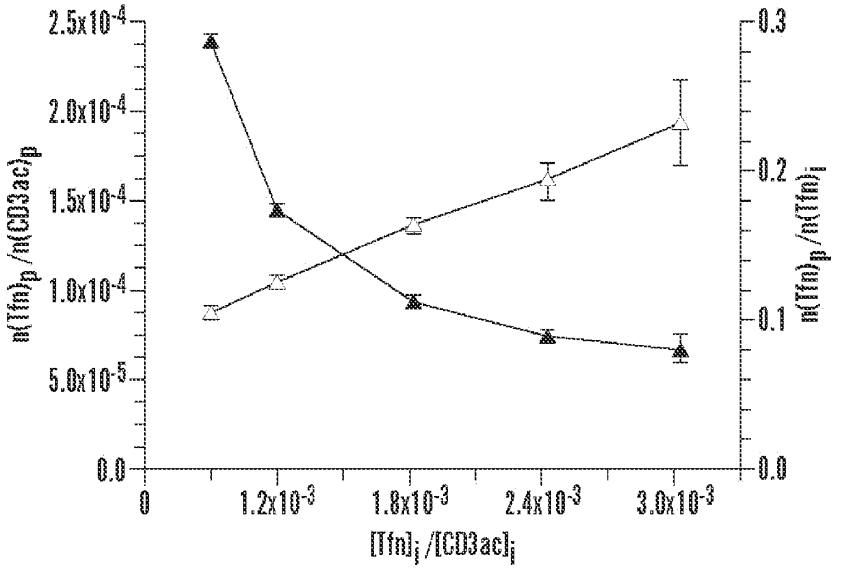

2.5x10-4
2.0x10-4
1.5x10-4
1.0x10-4
5.0x10-5
0.0
n(Tfn)p /n(CD3ac)p
0.3
0.2
0.1
0.0
n(Tfn)p /n(Tfn)i
0
1.2x10-3
1.8x10-3
2.4x10-3
3.0x10-3
[Tfn]i /[CD3ac]i

FIG. 9A

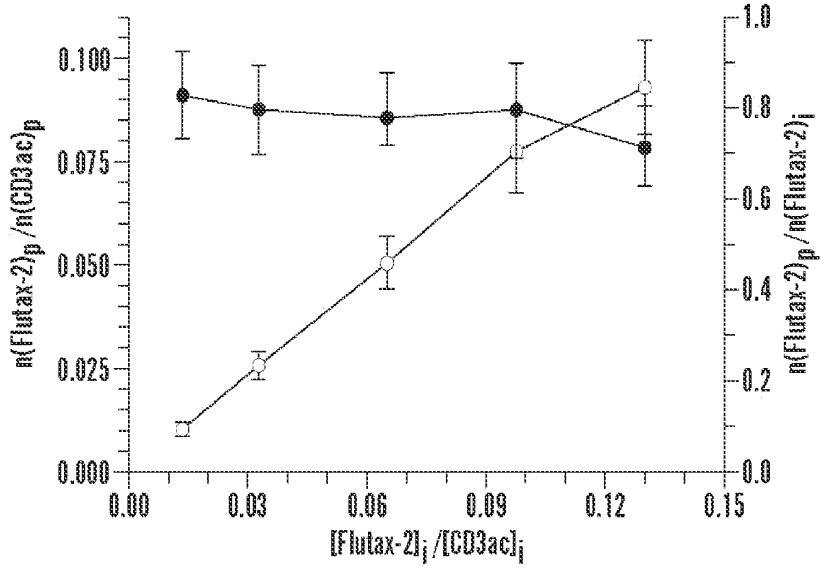

0.100
0.075
0.050
0.025
0.000
n(Flutax-2)p /n(CD3ac)p
1.0
0.8
0.6
0.4
0.2
0.0
n(Flutax-2)p /n(Flutax-2)i
0.00
0.03
0.06
0.09
0.12
0.15
[Flutax-2]i /[CD3ac]i

FIG. 9B

FIG. 9C

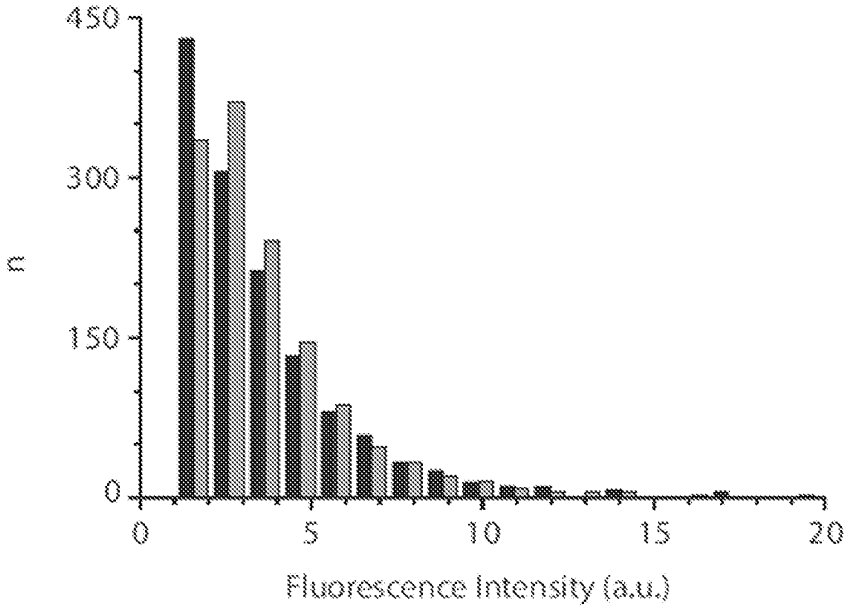
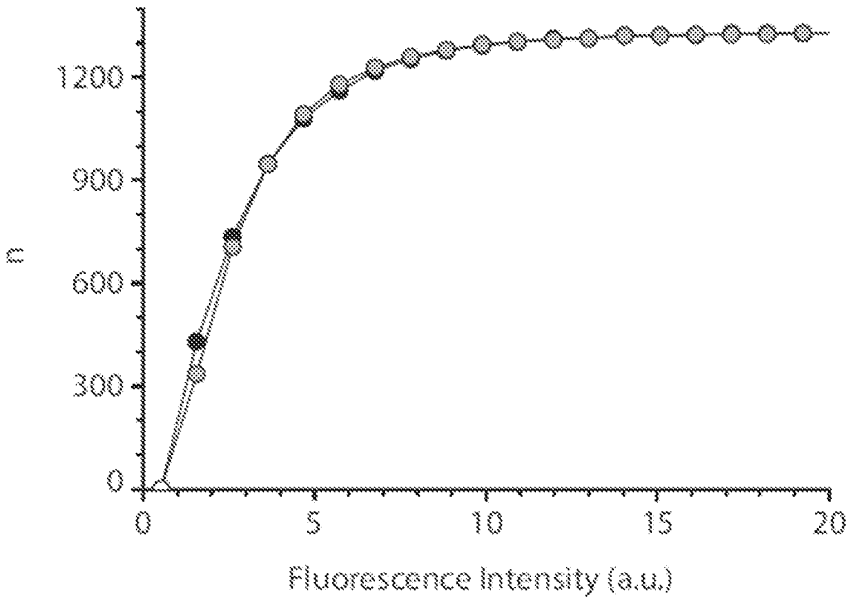

450
300
150
0
ε
0
5
10
15
20
Fluorescence Intensity (a.u.)

FIG. 9D


1200
900
600
300
0
ε
0
5
10
15
20
Fluorescence Intensity (a.u.)

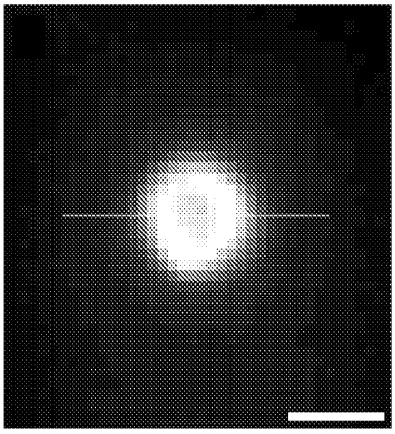


FIG. 10A

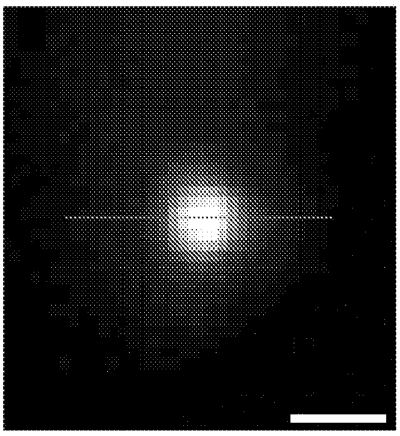


FIG. 10B

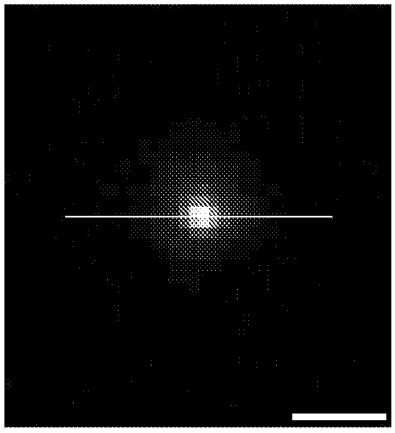


FIG. 10C

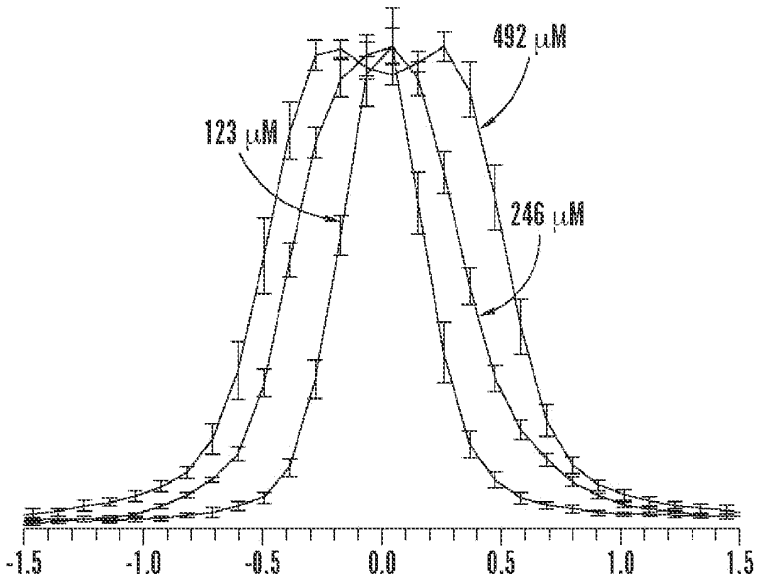


FIG. 10D

FIG. 10E

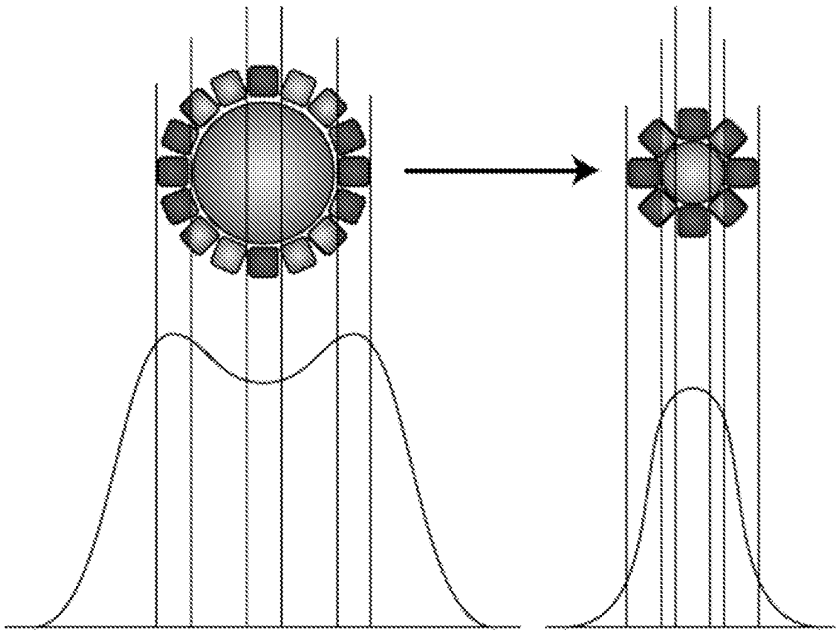


FIG. 10F

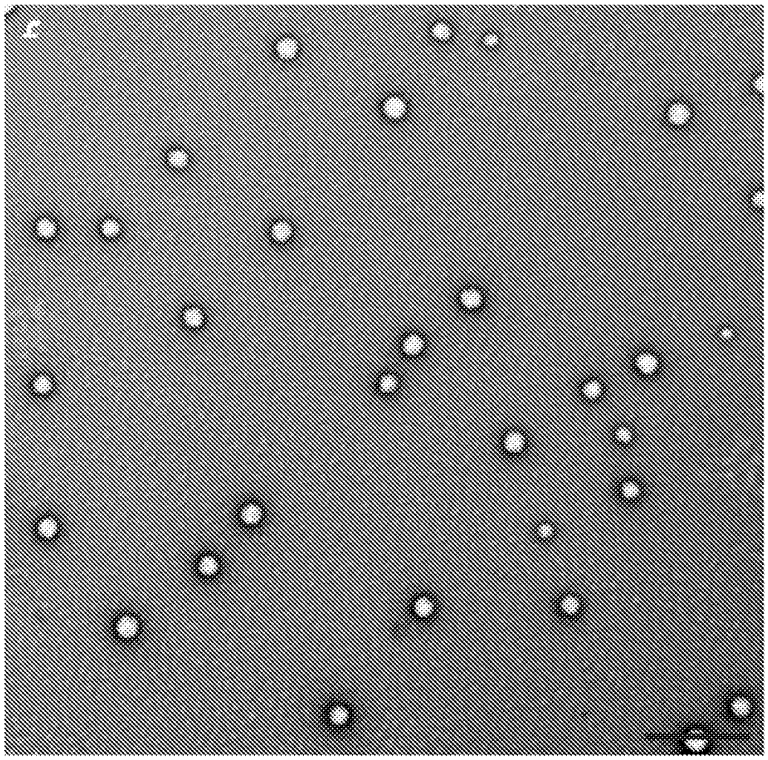


FIG. 10G

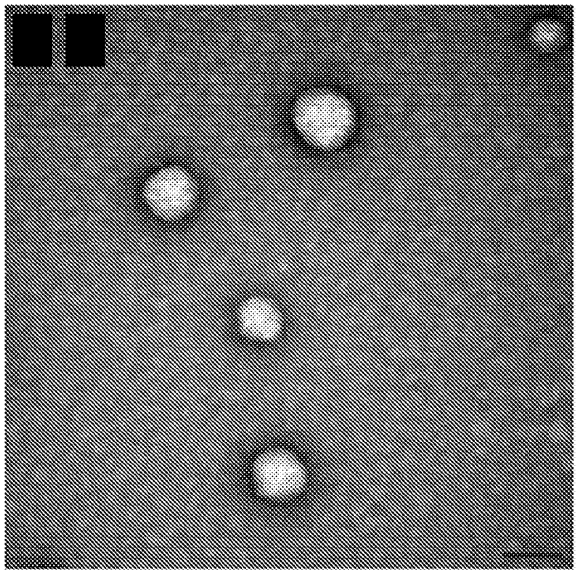


FIG. 10H

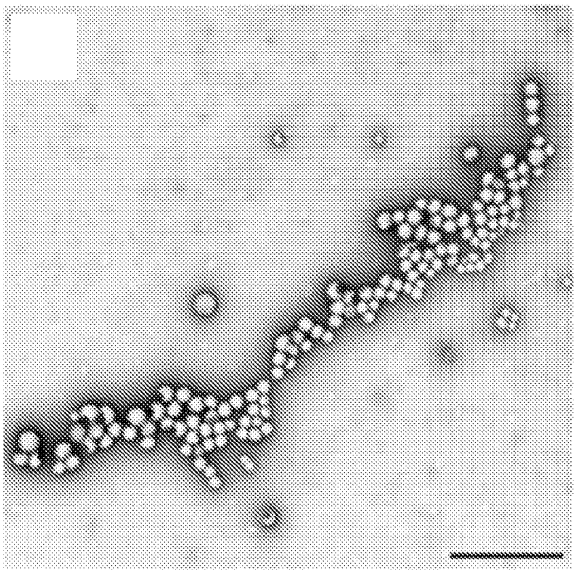
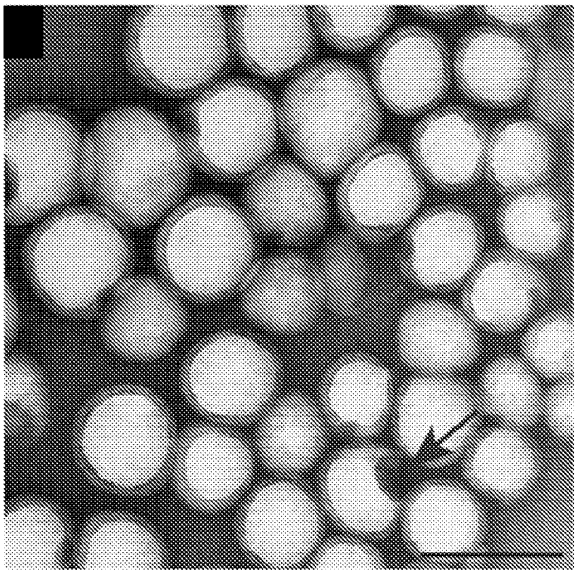


FIG. 10I



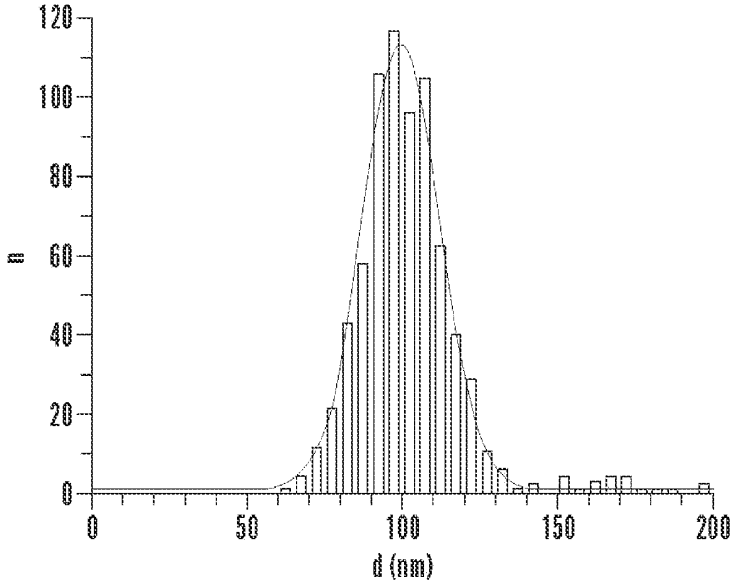


FIG. 10J

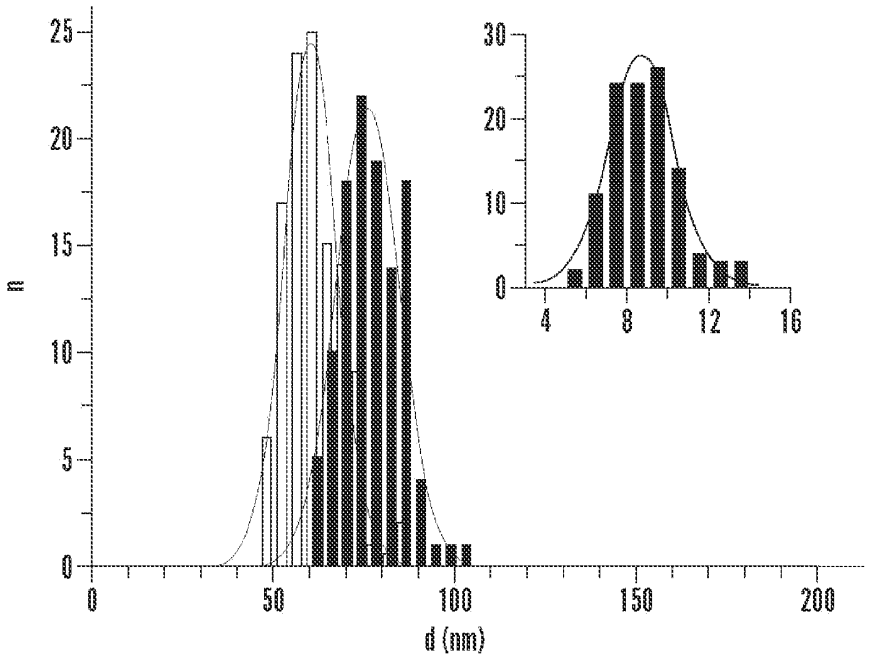


FIG. 10K

FIG. 11A ***FIG. 11B*** ***FIG. 11C***

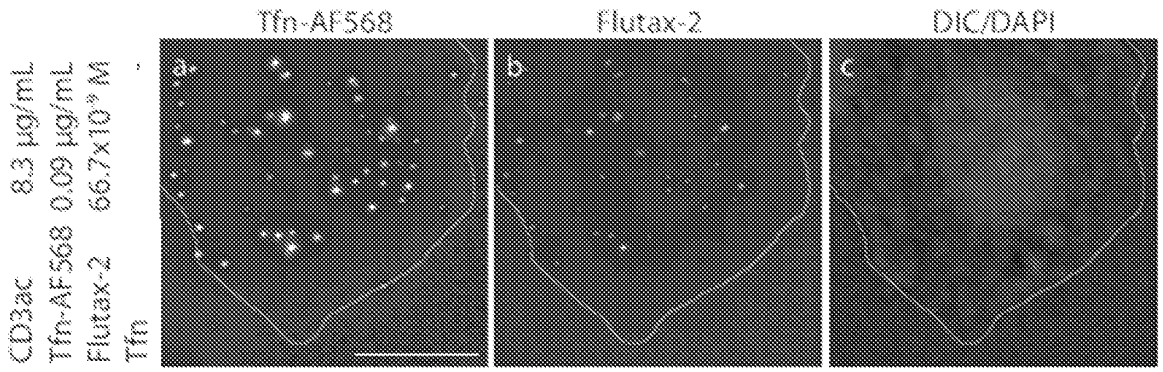


FIG. 11D ***FIG. 11E*** ***FIG. 11F***

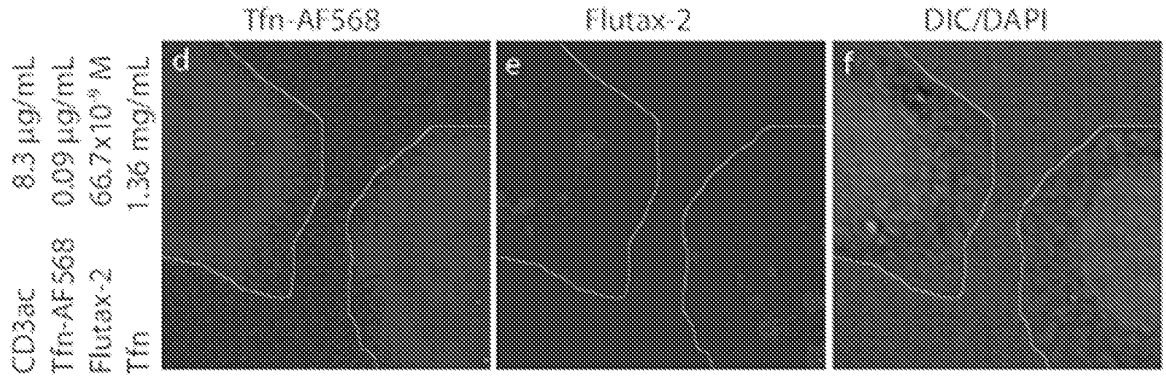
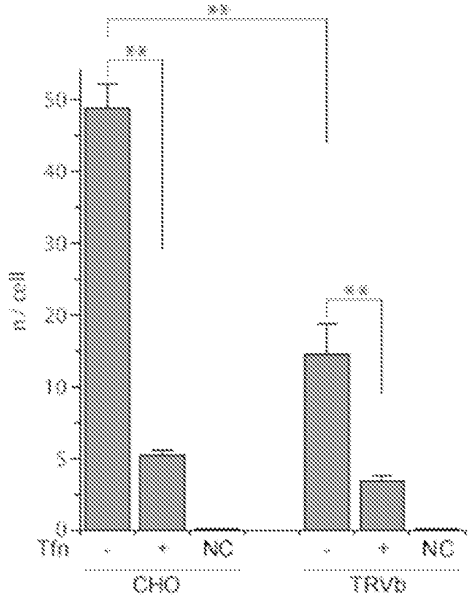


FIG. 11G



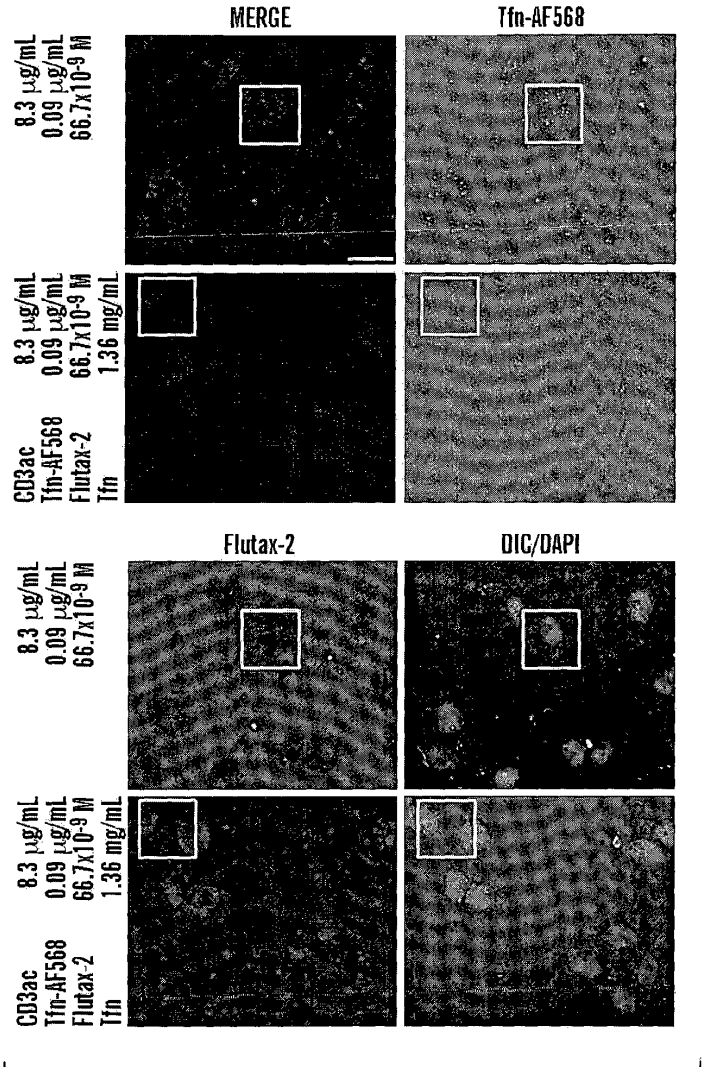

MERGE
Tfn-AF568
Flutax-2
DIC/DAPI
8.3 µg/mL
0.09 µg/mL
66.7x10-9 M
1.36 mg/mL
CD3ac
Tfn-AF568
Flutax-2
Tfn

FIG. 11H

FIG. 12A

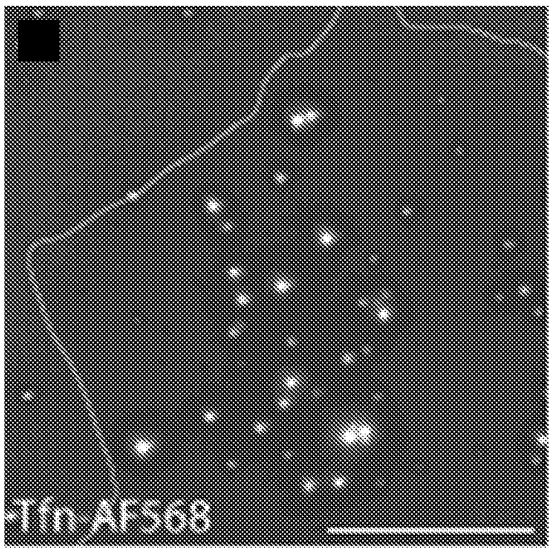


FIG. 12B

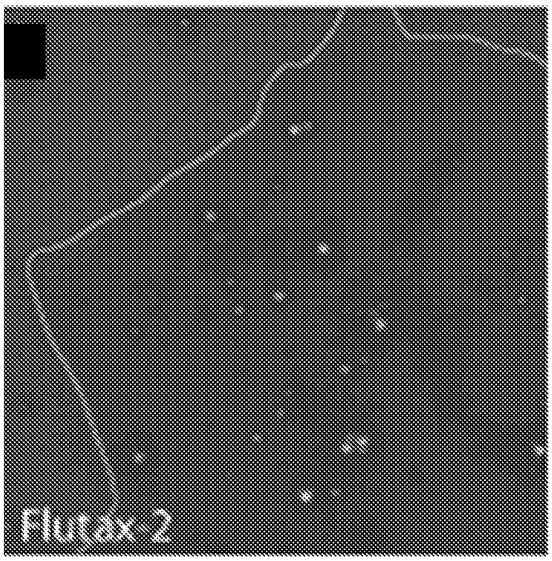


FIG. 12C

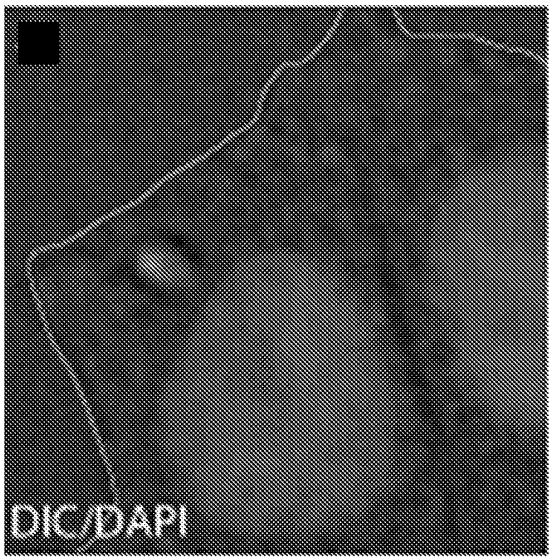
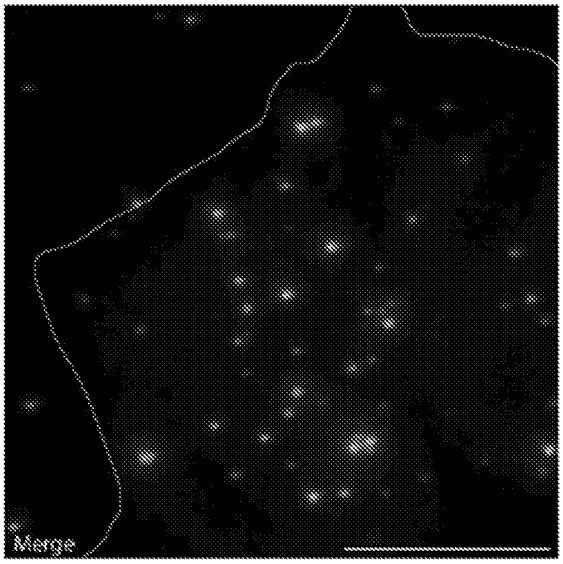


FIG. 12D



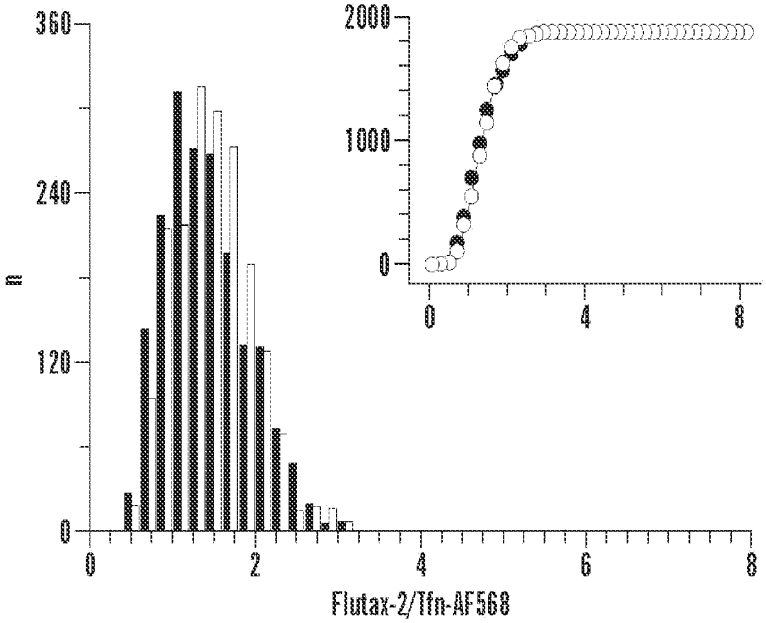


FIG. 12E

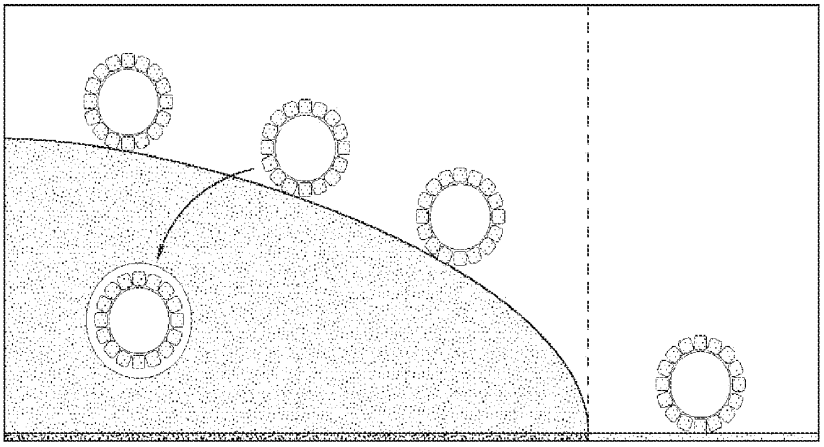


FIG. 12F

FIG. 12G

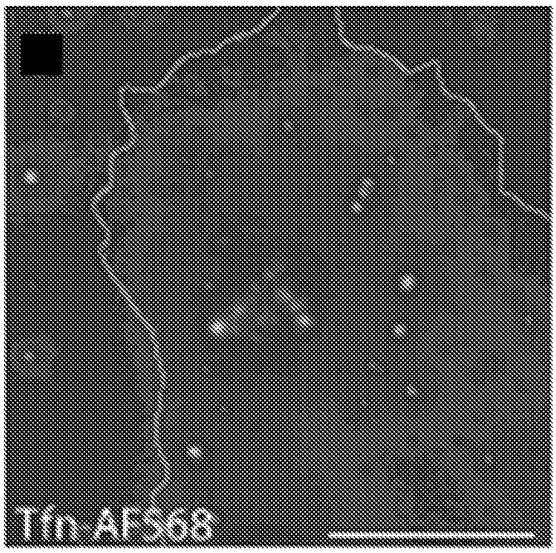


FIG. 12H

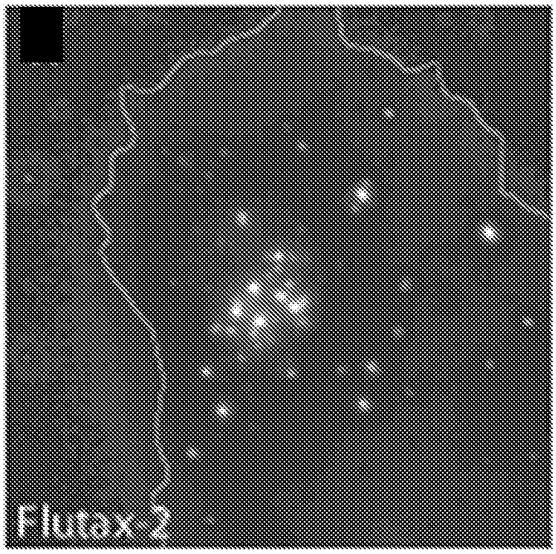


FIG. 12I

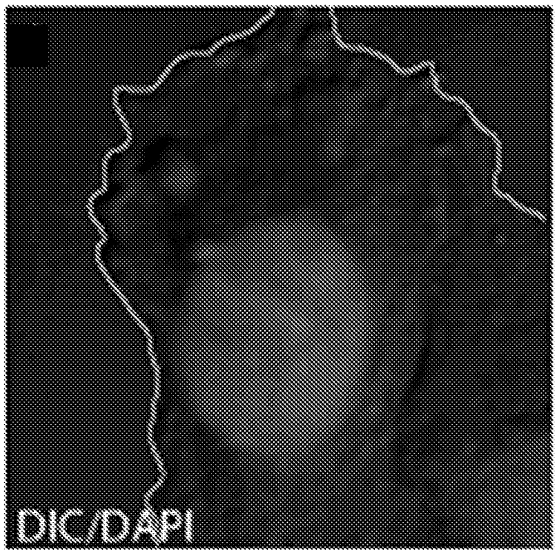
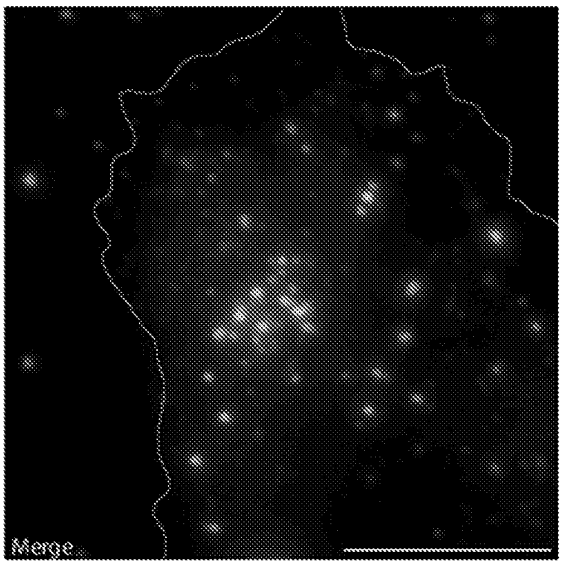


FIG. 12J



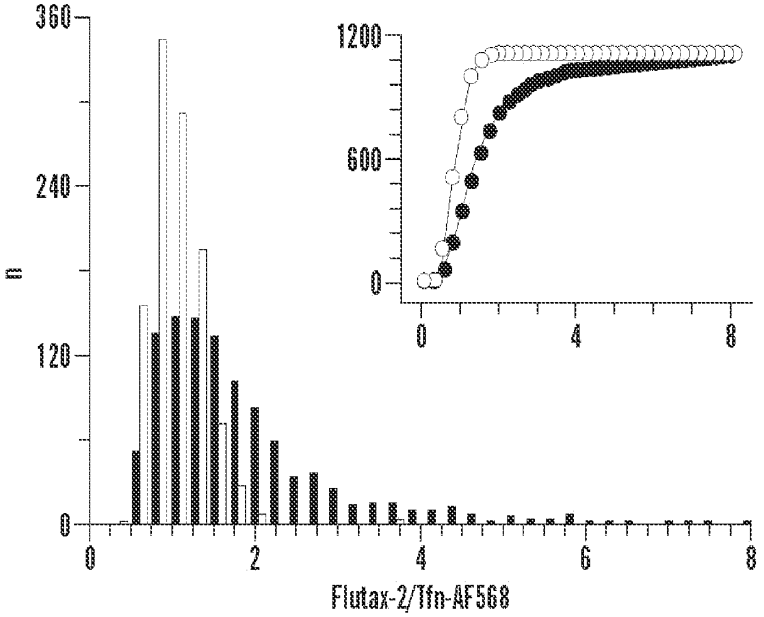


FIG. 12K

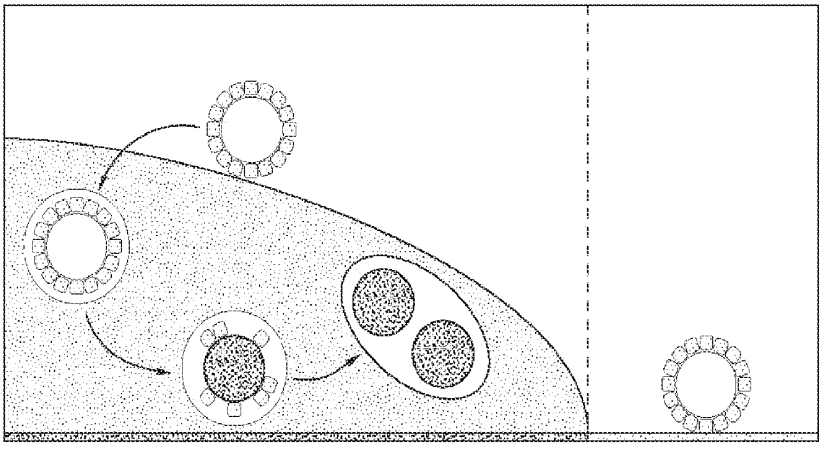


FIG. 12L

FIG. 12M

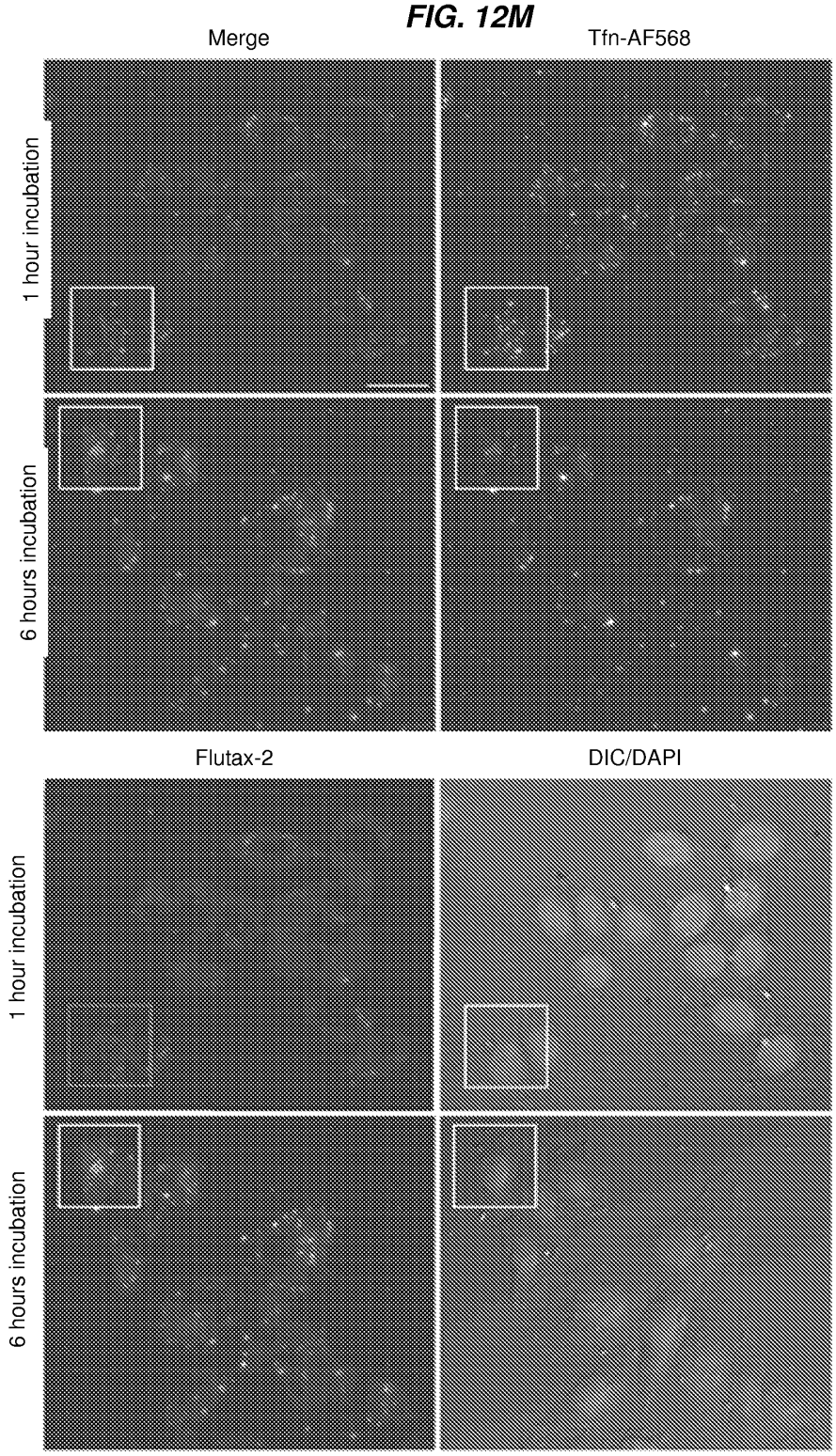

Merge
Tfn-AF568
1 hour incubation
6 hours incubation
Flutax-2
DIC/DAPI
1 hour incubation
6 hours incubation

FIG. 13A

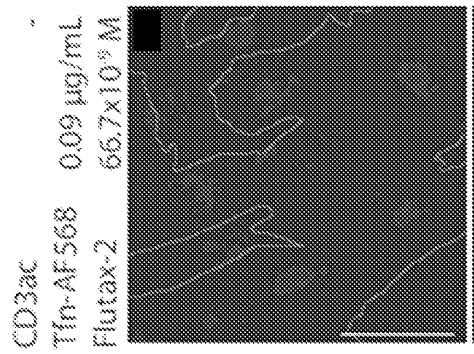


FIG. 13B



FIG. 13C

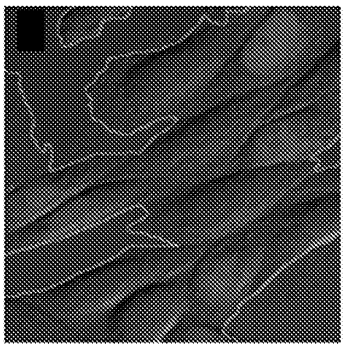


FIG. 13D

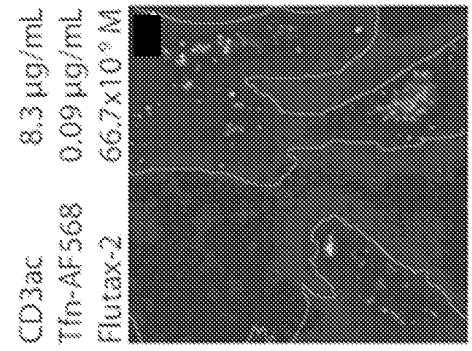


FIG. 13E

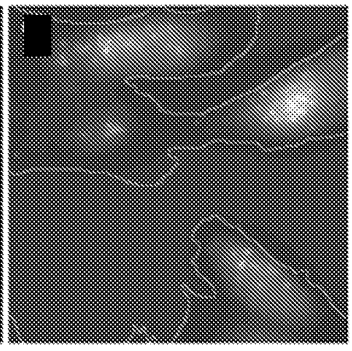


FIG. 13F

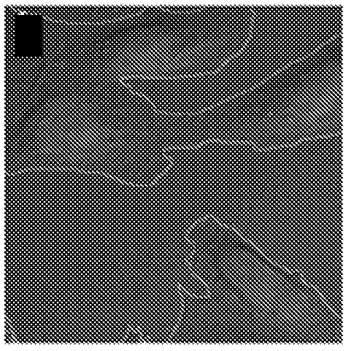


FIG. 13G

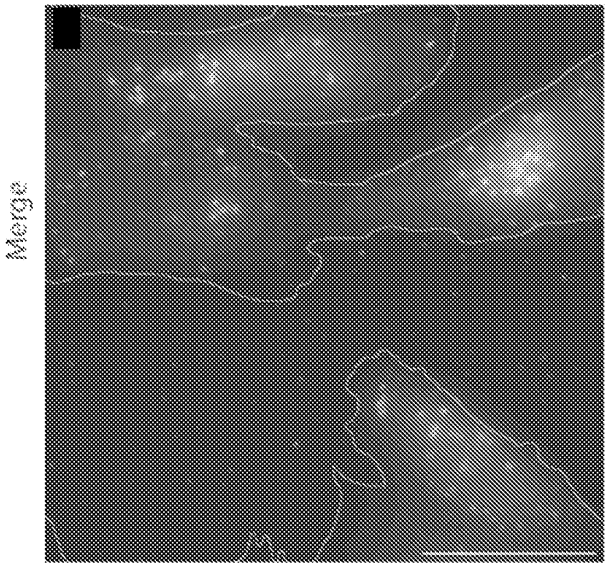


FIG. 13H

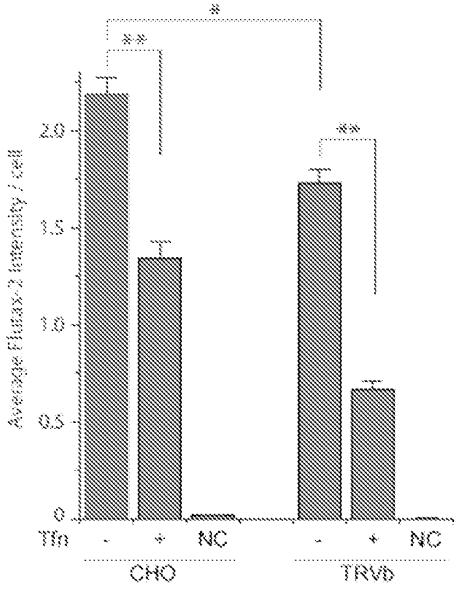


FIG. 13I

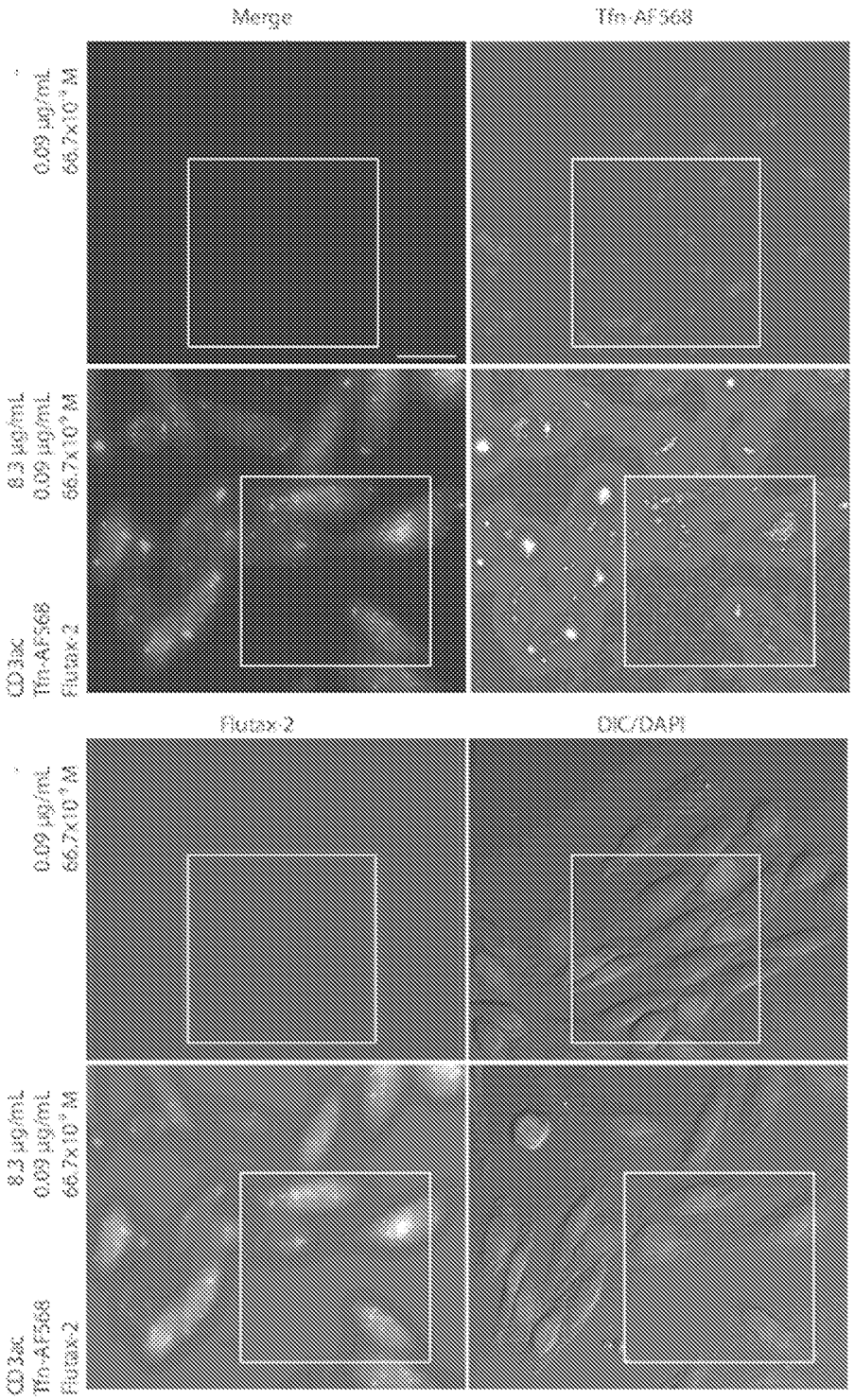
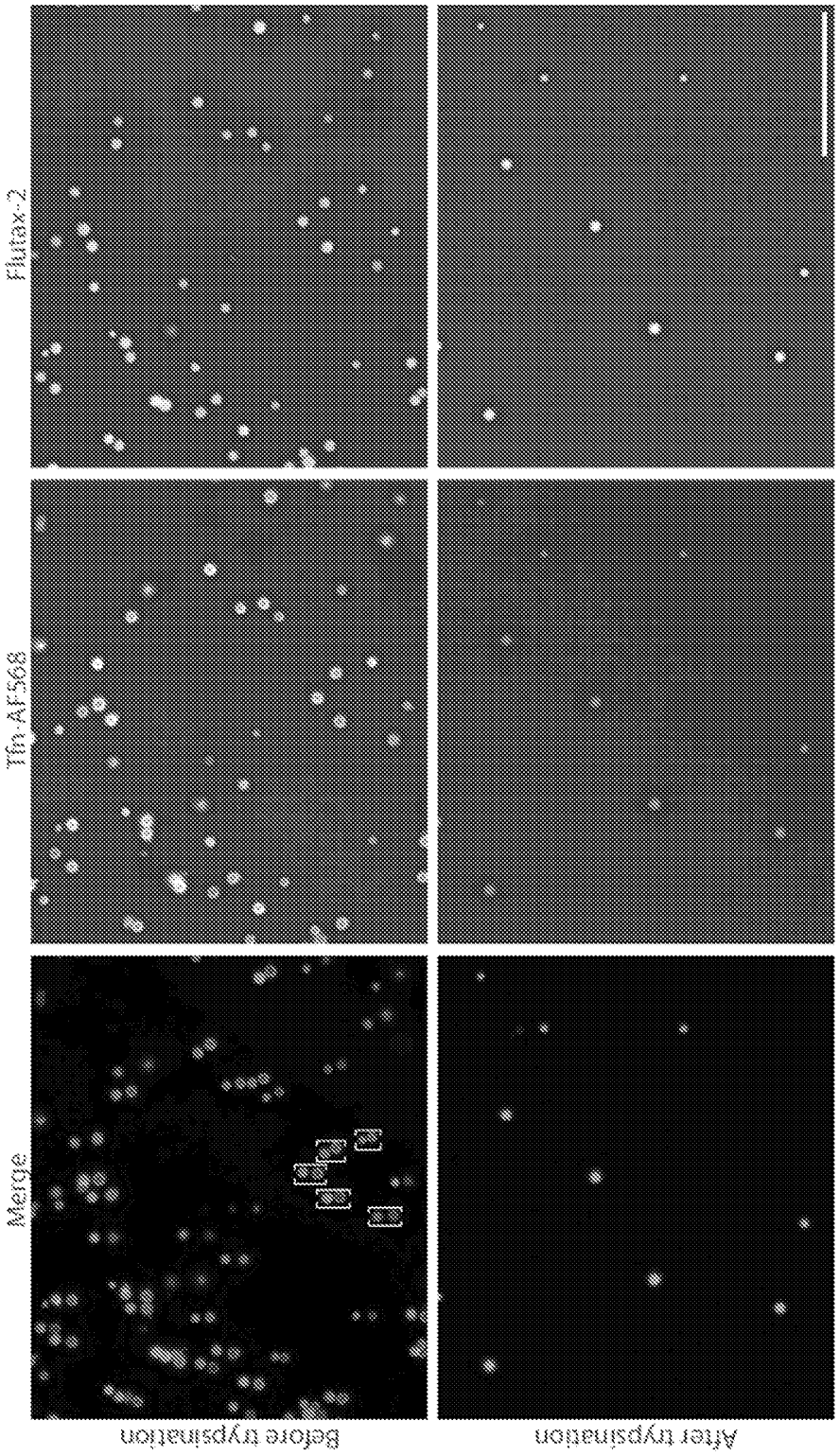

Merge
Tfn-AF568
-
0.09 µg/mL
66.7x10⁻⁹ M
8.3 µg/mL
0.09 µg/mL
66.7x10⁻⁹ M
CD3xc
Tfn-AF568
Flutax-2
Flutax-2
DIC/DAPI
-
0.09 µg/mL
66.7x10⁻⁹ M
8.3 µg/mL
0.09 µg/mL
66.7x10⁻⁹ M
CD3xc
Tfn-AF568
Flutax-2

FIG. 14


Flutax-2
Tfn-AF568
Merge
Before trypsination
After trypsination

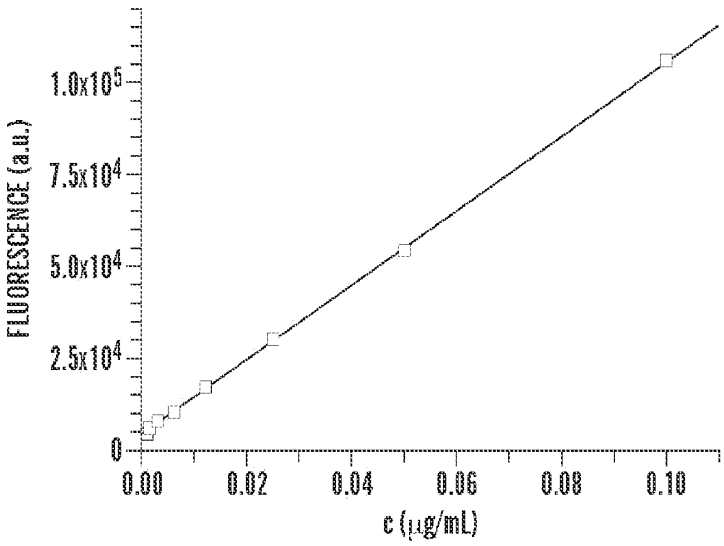


FIG. 15A

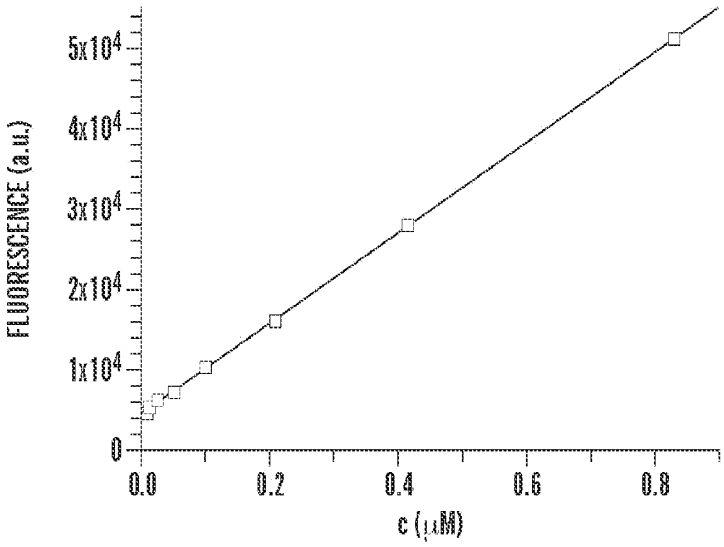


FIG. 15B

FIG. 16A

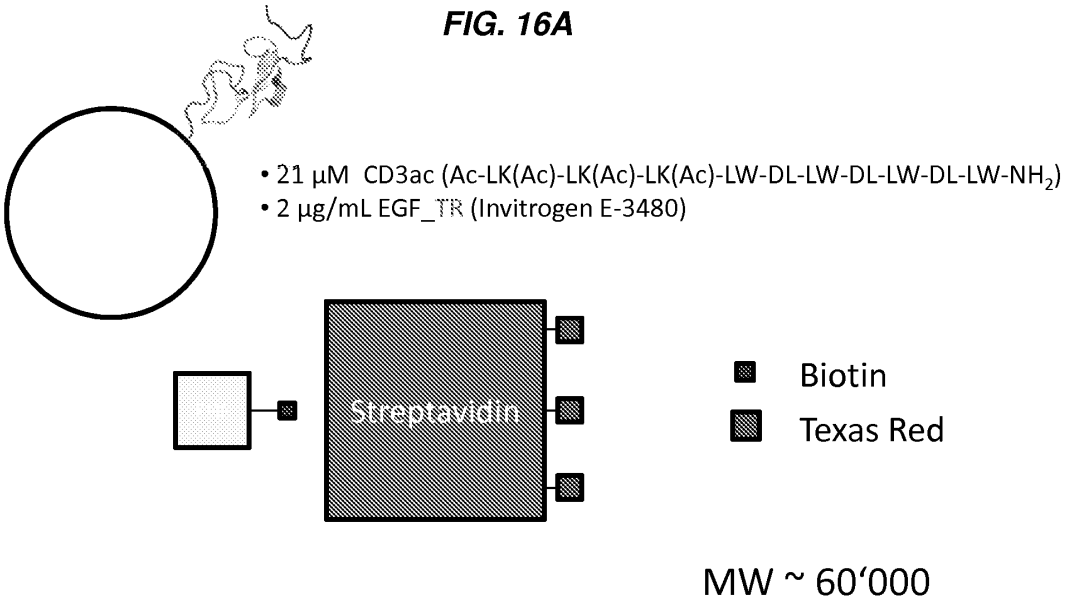


FIG. 16B

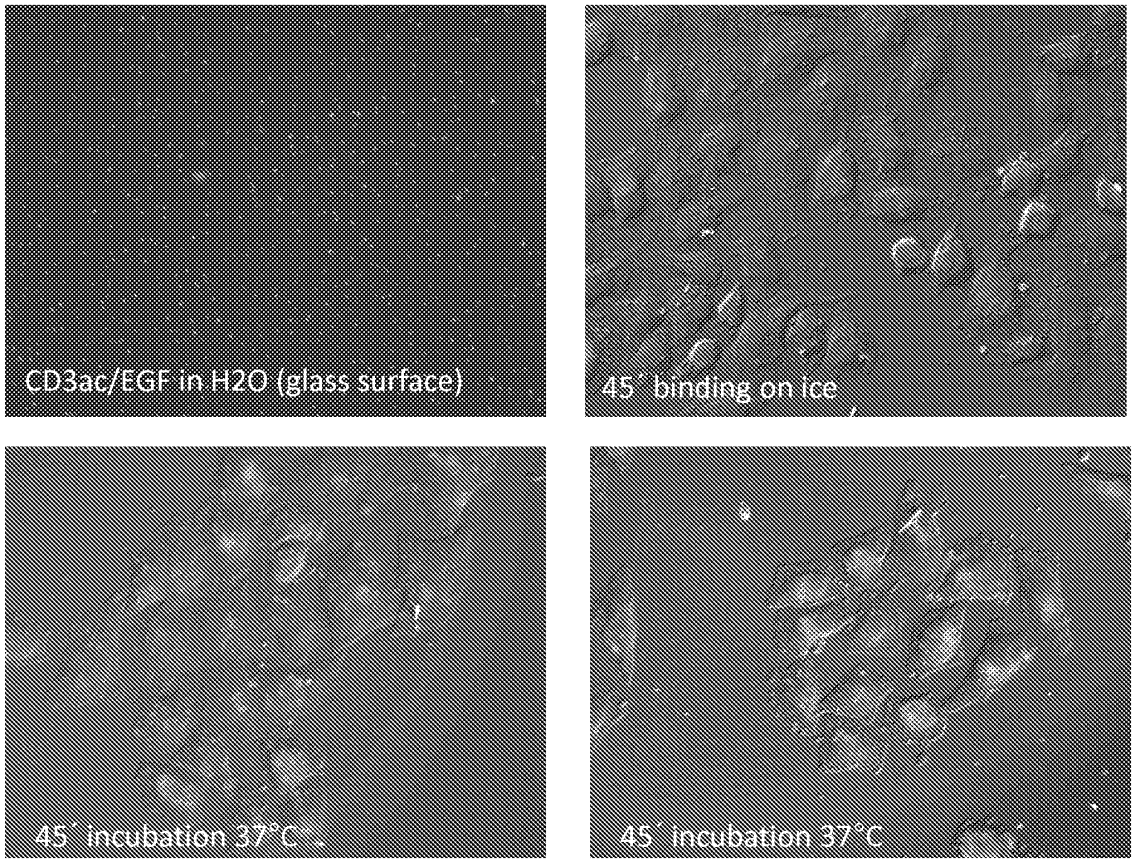
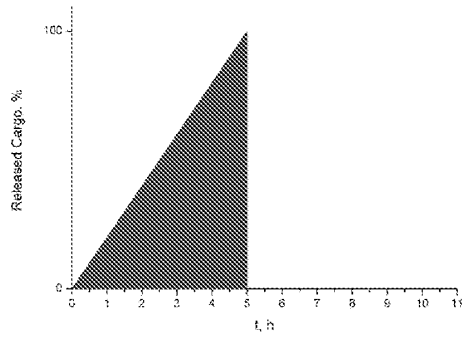


FIG. 17A

PB1e

- 21 μM CD3ac (Ac-LK(Ac)-LK(Ac)-LK(Ac)-LW-DL-LW-DL-LW-DL-LW-NH_2)
- 2 ug/mL EGF labeled with Texas_Red (EGF_TR)
- 20 uM Nocodazole
- DMEM/PBS

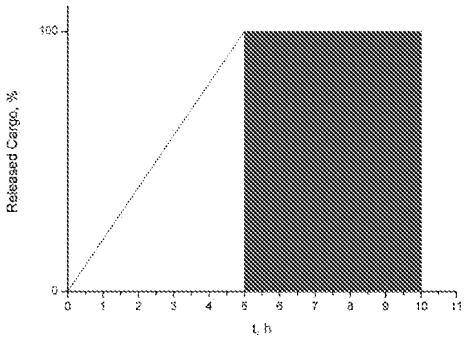


Negative control (NC)

- DMEM/PBS

PB1e Supernatant Control (PB1e_sup)

- 21 µM CD3ac (Ac-LK(Ac)-LK(Ac)-LK(Ac)-LW-DL-LW-DL-LW-DL-LW-NH_2)
- 2 µg/mL EGF_TR
- 20 uM Nocodazole
- DMEM/PBS
- Incubate for 5 h at 37 °C
- Spin down 16,000g, 30 min
- Apply supernatant to cells



Nocodazole (NOC)

- 20 uM Nocodazole
- DMEM/PBS

FIG. 17B

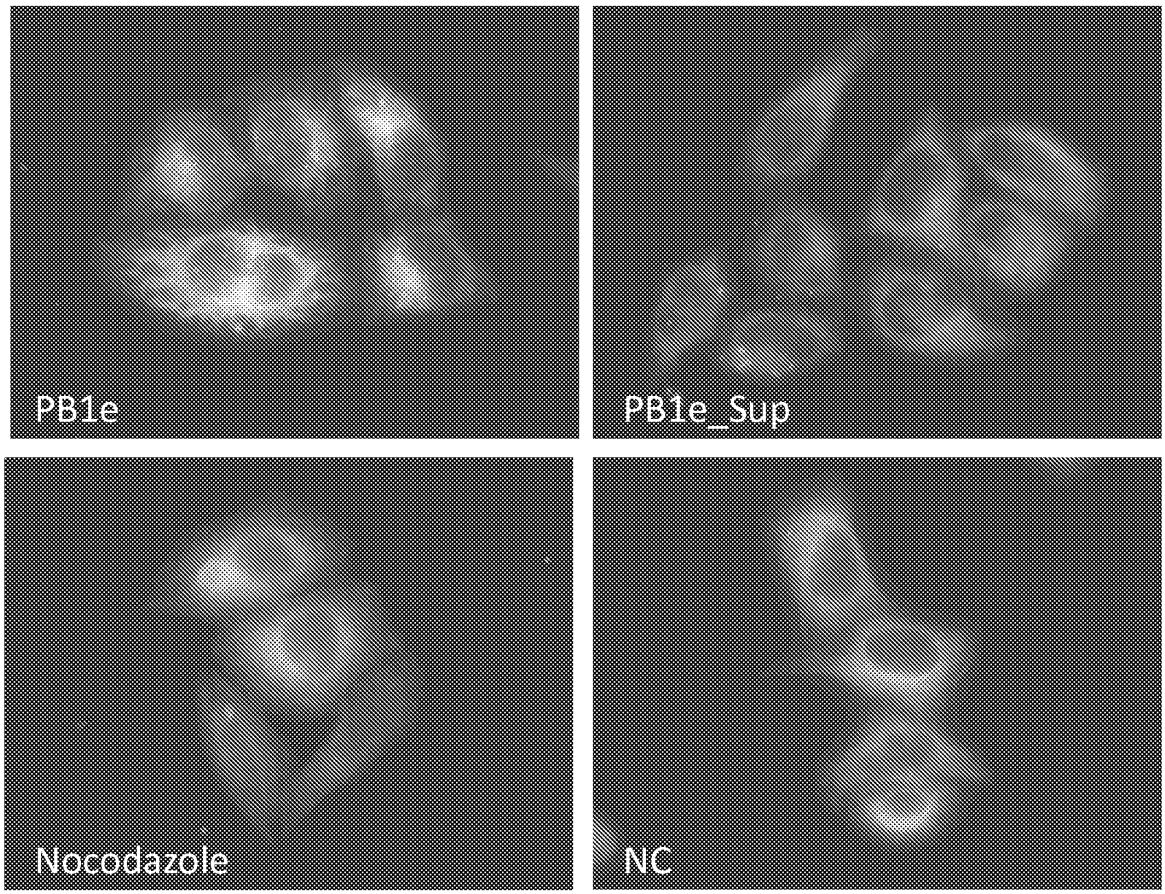


FIG. 17C

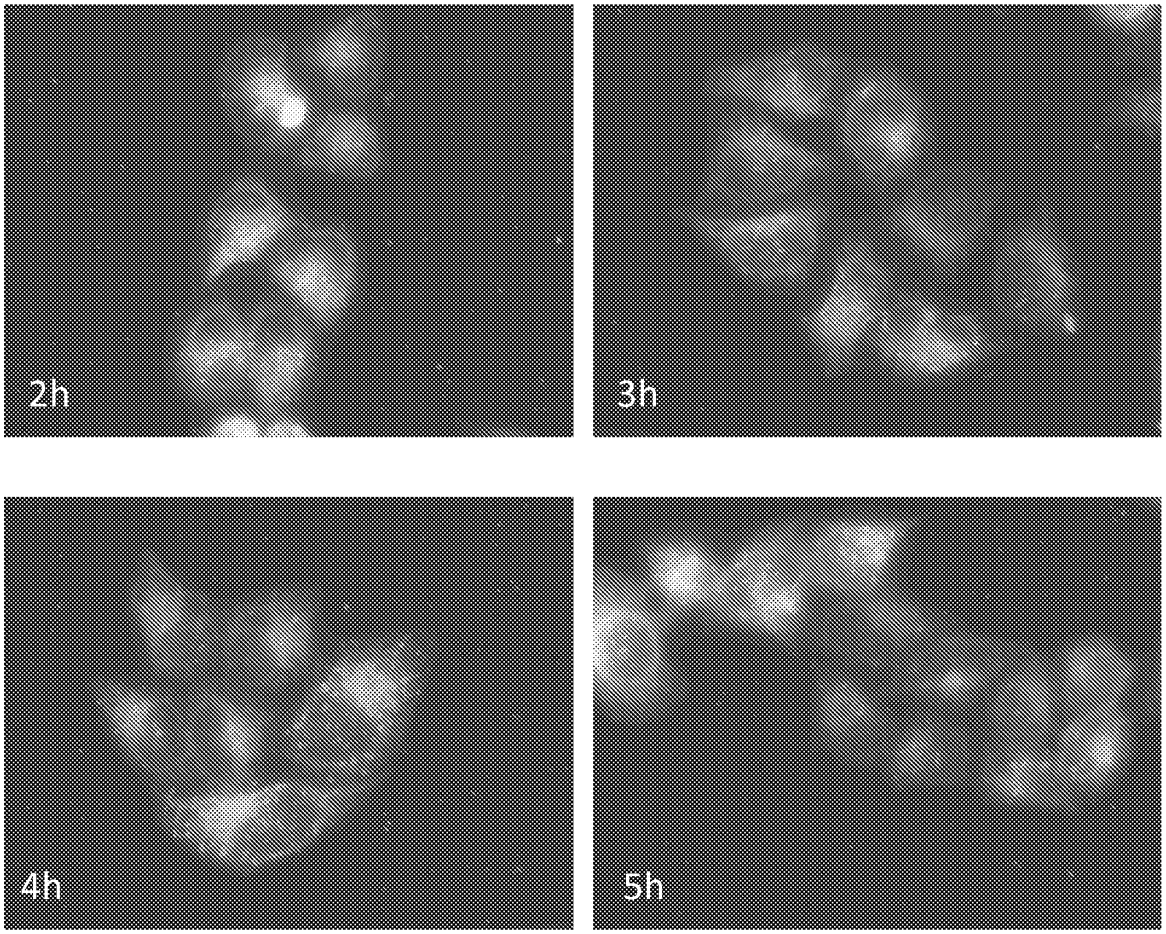


FIG. 17D

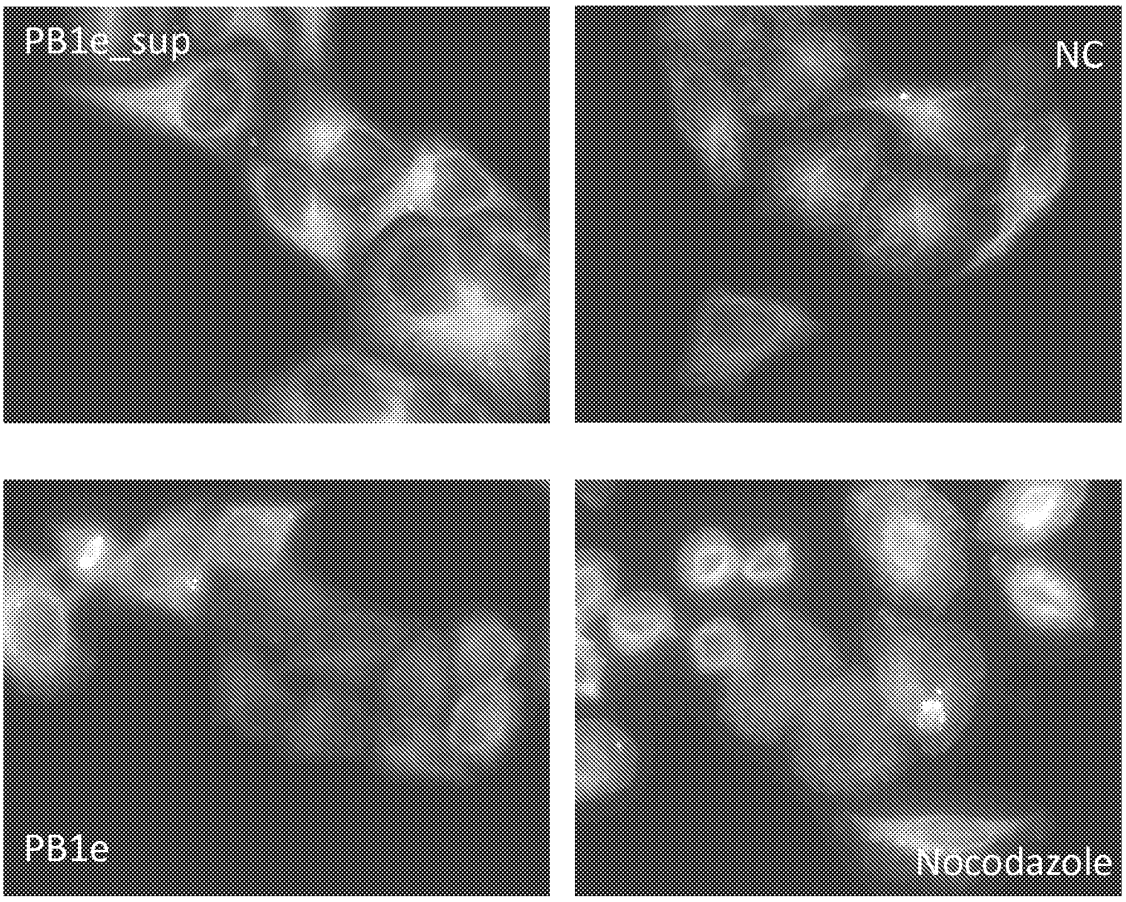


FIG. 17E

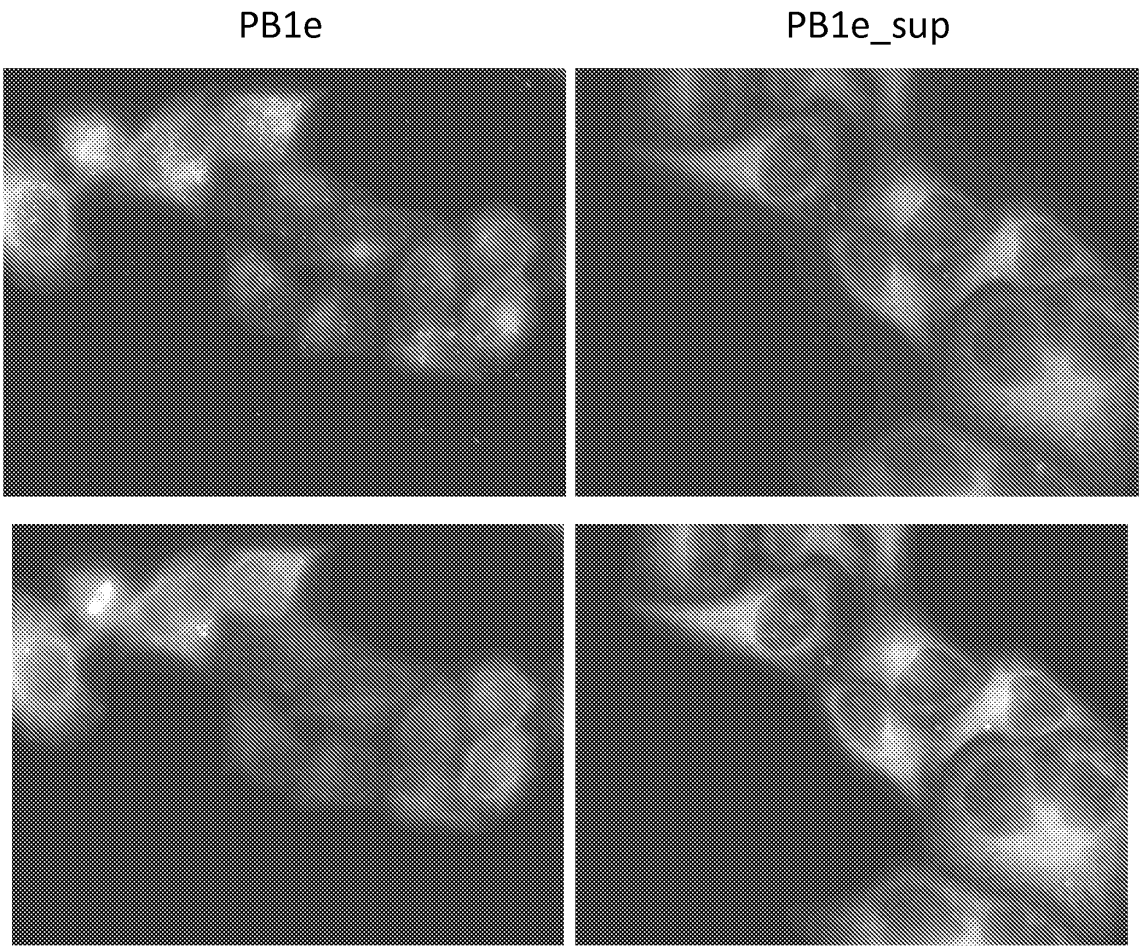


FIG. 17F

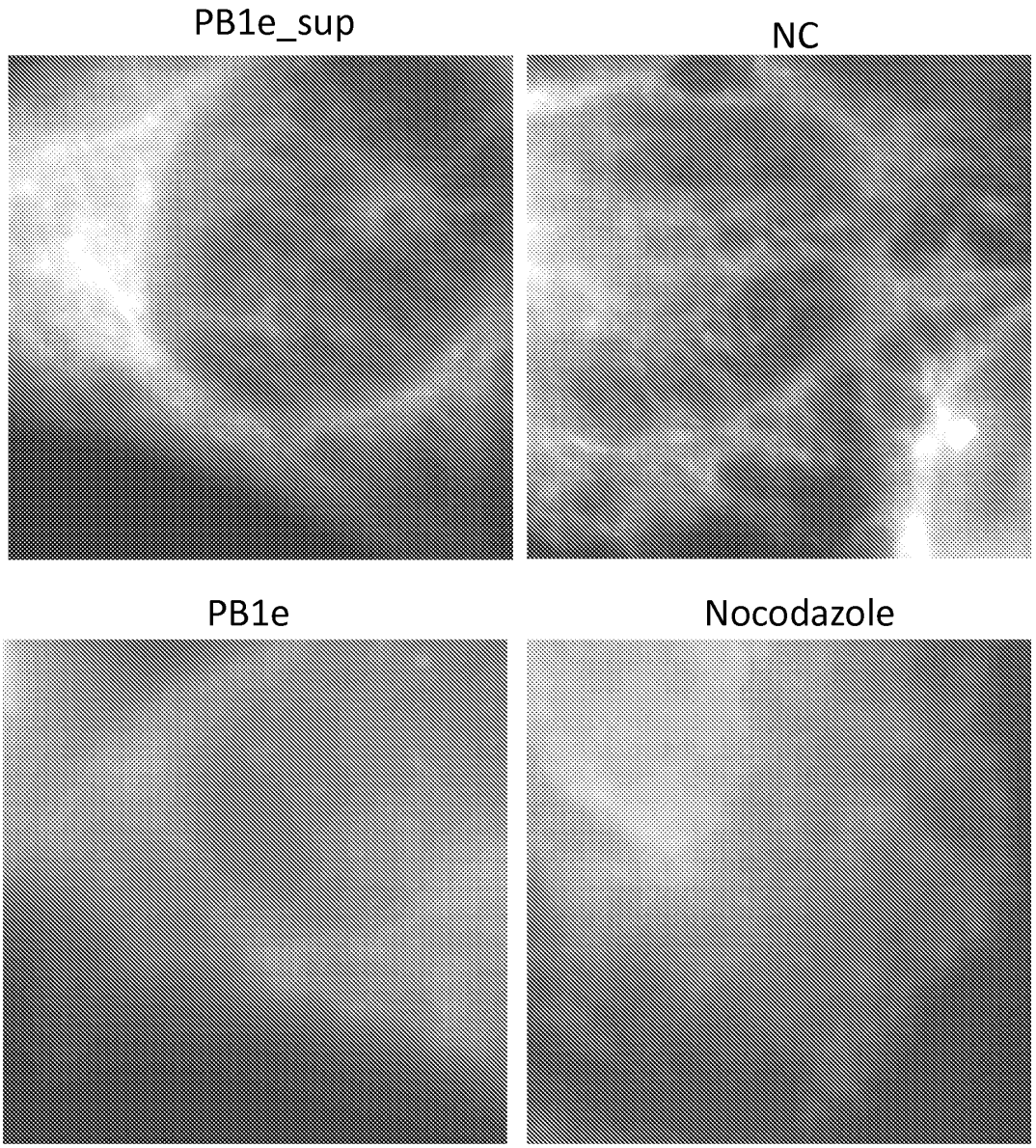
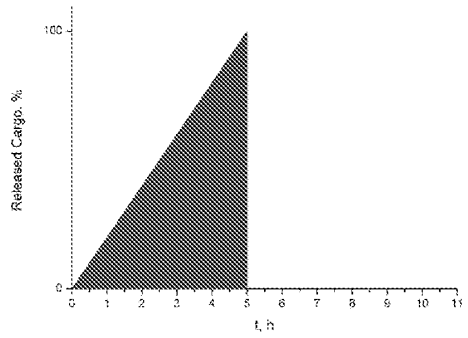


FIG. 17G

PB1e

- 21 μM CD3ac (Ac-LK(Ac)-LK(Ac)-LK(Ac)-LW-DL-LW-DL-LW-DL-LW-NH_2)
- 2 ug/mL EGF labeled with Texas_Red (EGF_TR)
- 40 uM Nocodazole
- DMEM/PBS

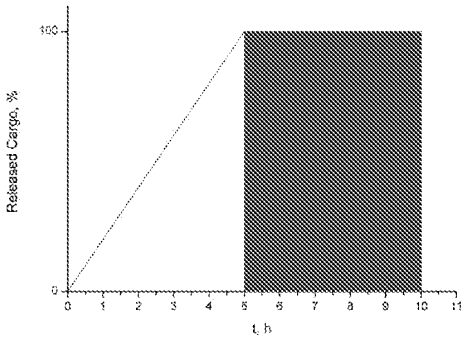


Negative control (NC)

- DMEM/PBS

PB1e Supernatant Control (PB1e_sup)

- 21 µM CD3ac (Ac-LK(Ac)-LK(Ac)-LK(Ac)-LW-DL-LW-DL-LW-DL-LW-NH_2)
- 2 µg/mL EGF_TR
- 40 uM Nocodazole
- DMEM/PBS
- Incubate for 5 h at 37 °C
- Spin down 16,000g, 30 min
- Apply supernatant to cells

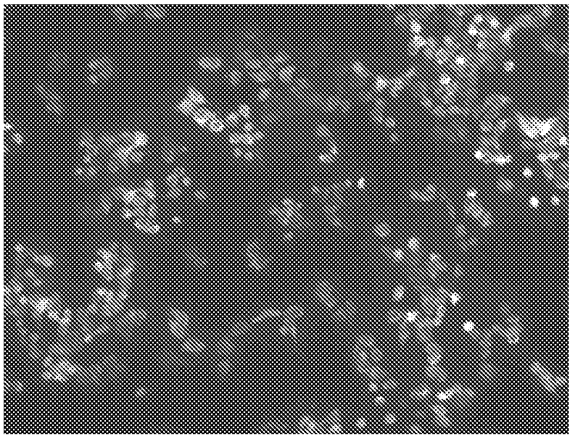


Nocodazole (NOC)

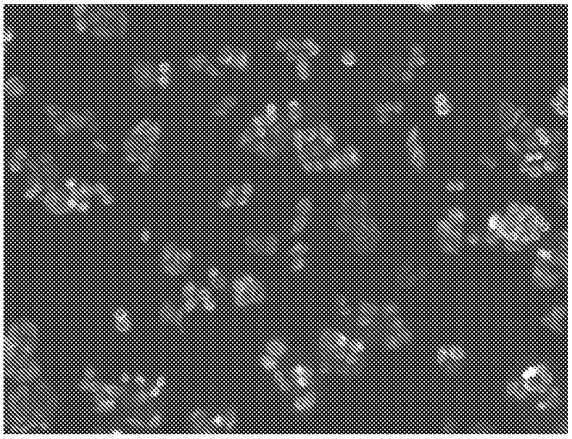
- 40 uM Nocodazole
- DMEM/PBS

FIG. 17H

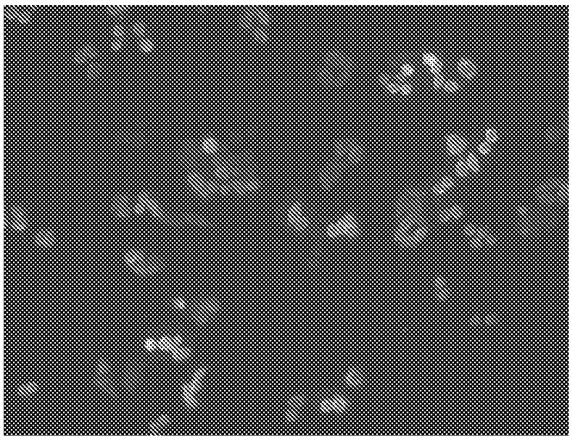
4 h incubation at 37°C, 10x



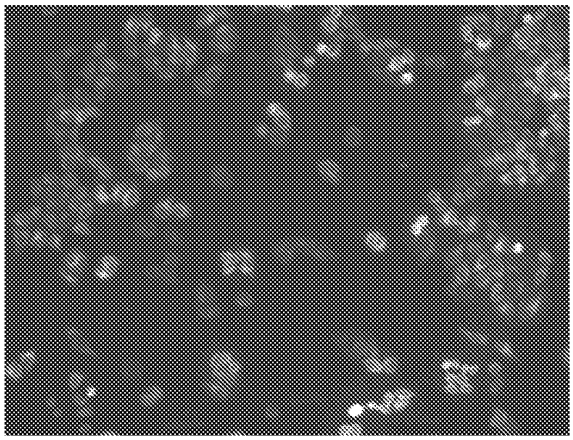
PB1e



PB1e_sup



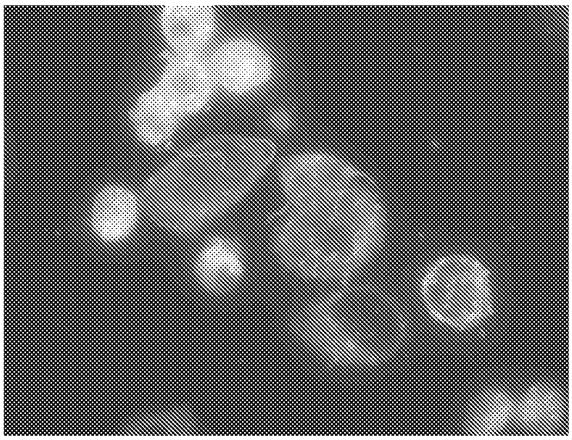
Nocodazole



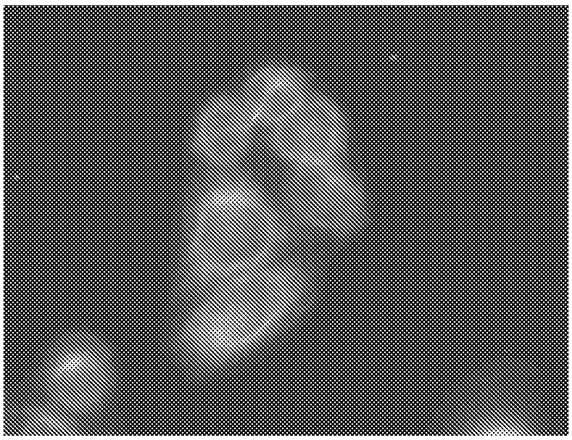
NC

FIG. 17I

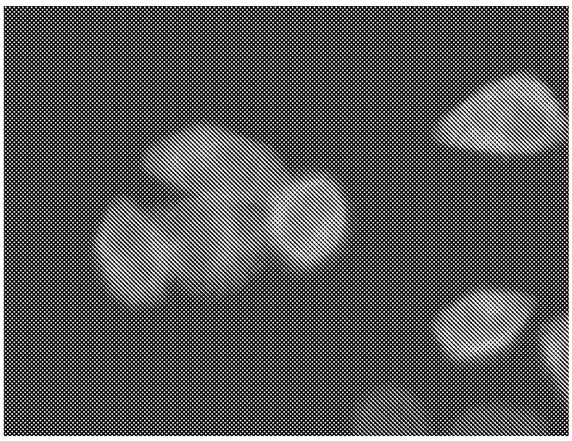
4 h incubation at 37°C, 60x



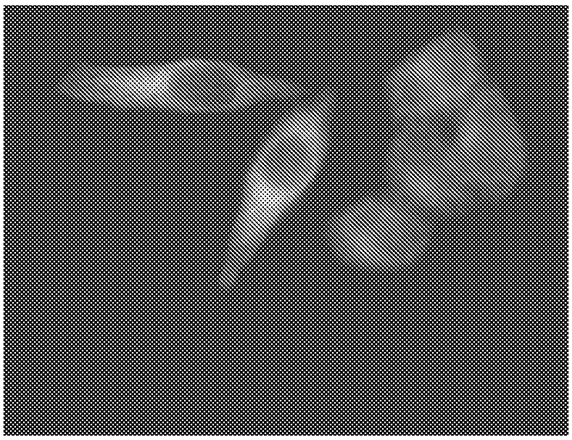
PB1e



PB1e_sup



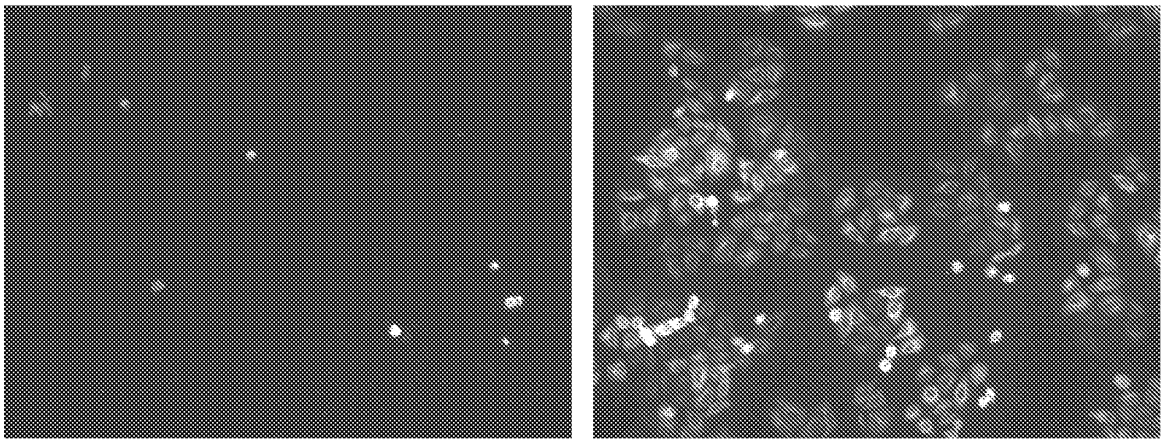
Nocodazole



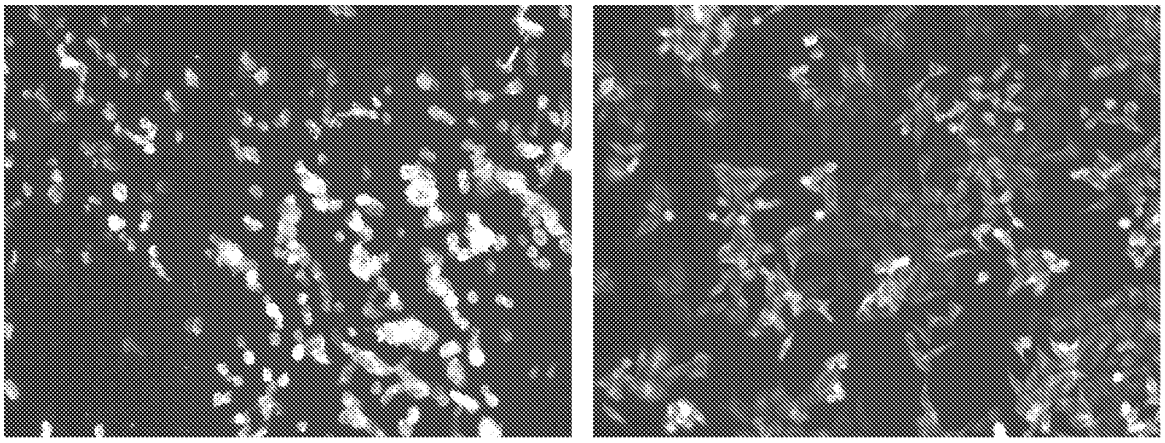
NC

FIG. 17J

24 h incubation at 37°C, 10x



PB1e PB1e_sup



Nocodazole NC

FIG. 17K

24 h incubation at 37°C, 60x

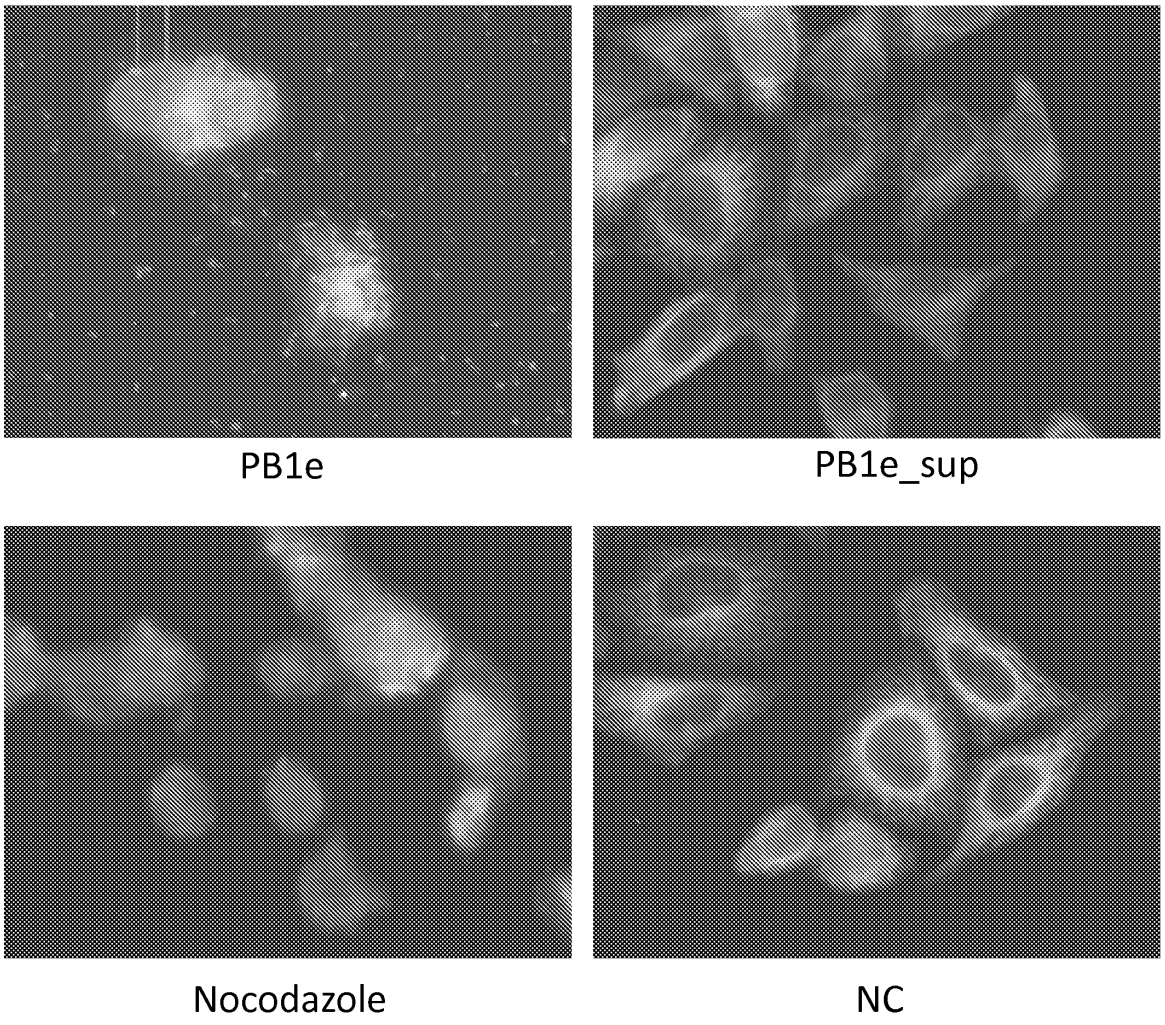
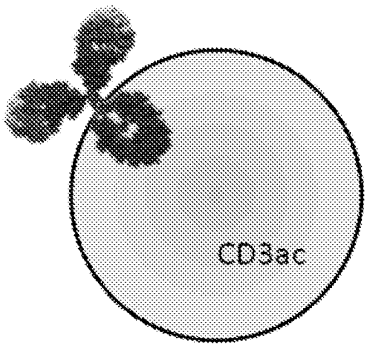
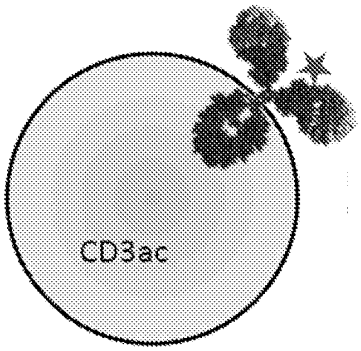


FIG. 18A

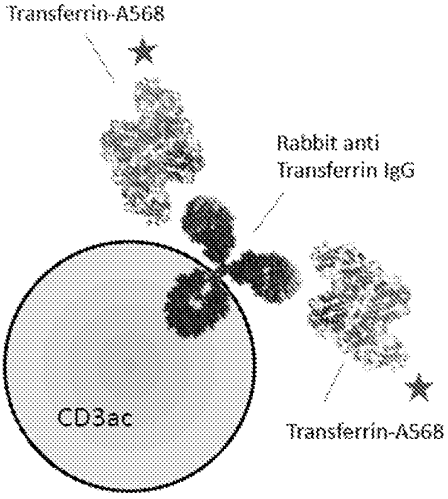


CD3ac & Primary antibody
(e.g., rabbit anti-transferrin IgG)



CD3ac & secondary antibody
(e.g., donkey anti-rabbit IgG
(optionally labeled with a fluorescent
molecule such as Alexa 555))

FIG. 18B



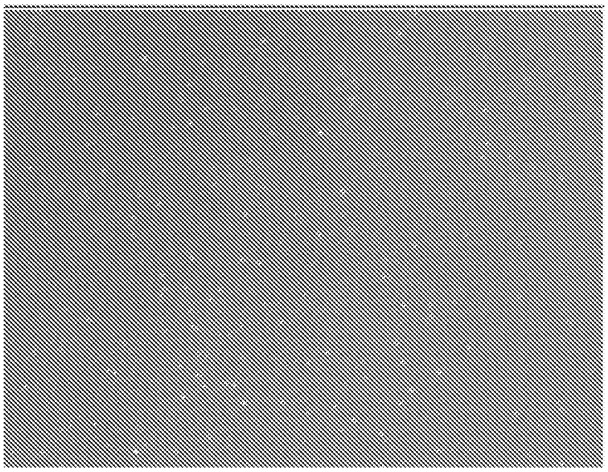


FIG. 18C

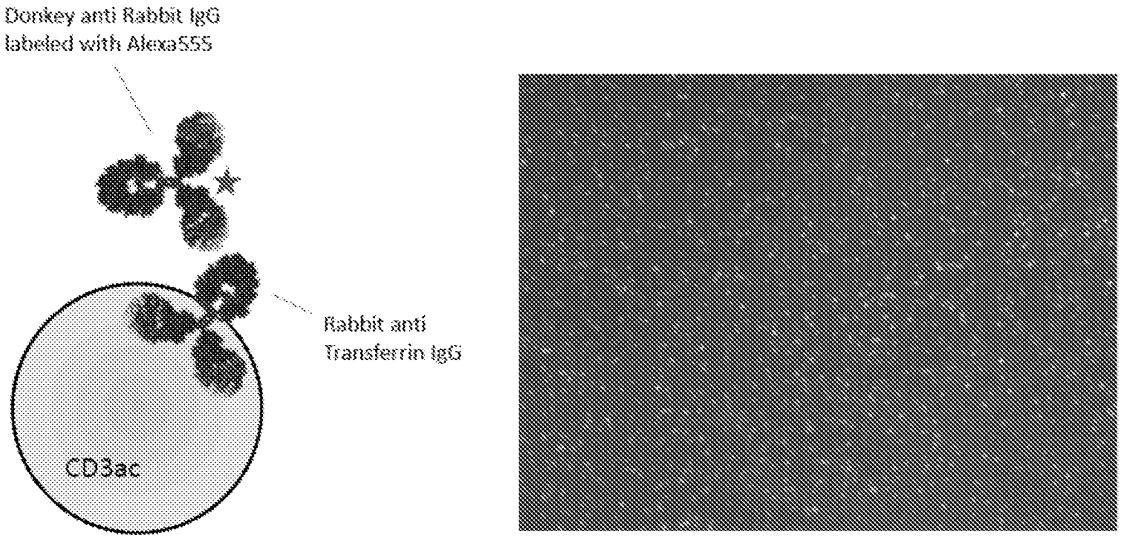
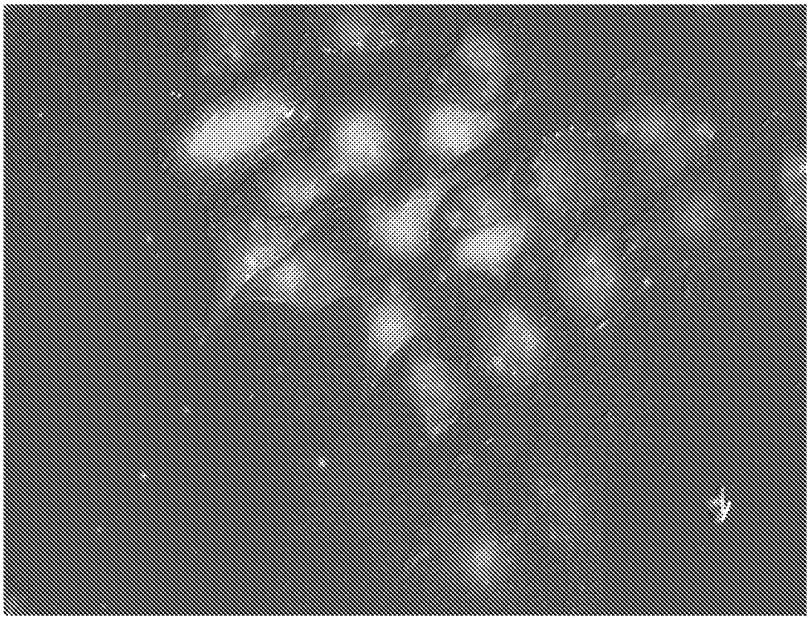
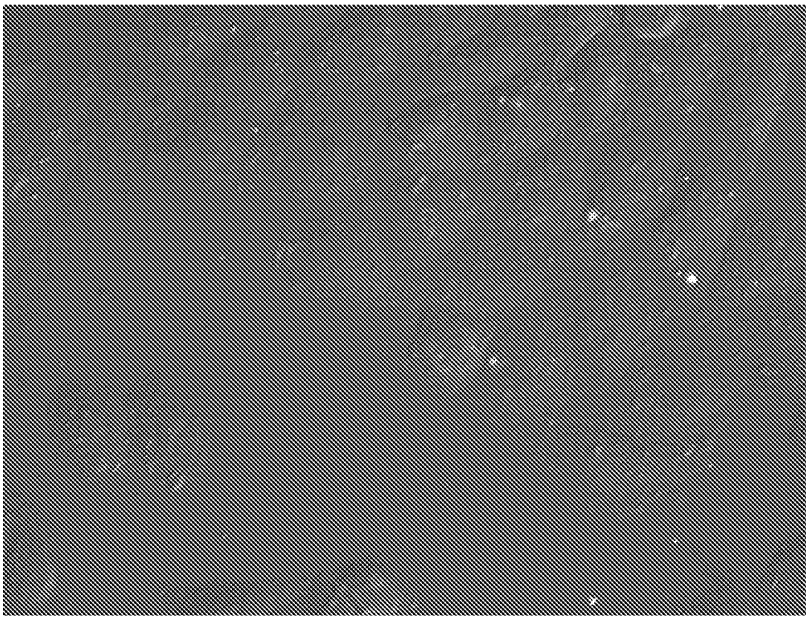


FIG. 19A



- 21 µM CD3 (H-LK-LK-LK-LW-DL-LW-DL-LW-DL-LW-NH_2)$^{4+}$
- 5.4 µM (5'-TTGTGCCGCCTTTGCAGGTGTATC-3')$^{24-}$
- 0.24 µM (AF_{488}-5'-TTGTGCCGCCTTTGCAGGTGTATC-3')$^{24-}$

FIG. 19B



- 5.4µM (5‘-TTGTGCCGCCTTTGCAGGTGTATC-3‘)$^{24-}$
- 0.24 µM (AF_{488}-5‘-TTGTGCCGCCTTTGCAGGTGTATC-3‘)$^{24-}$

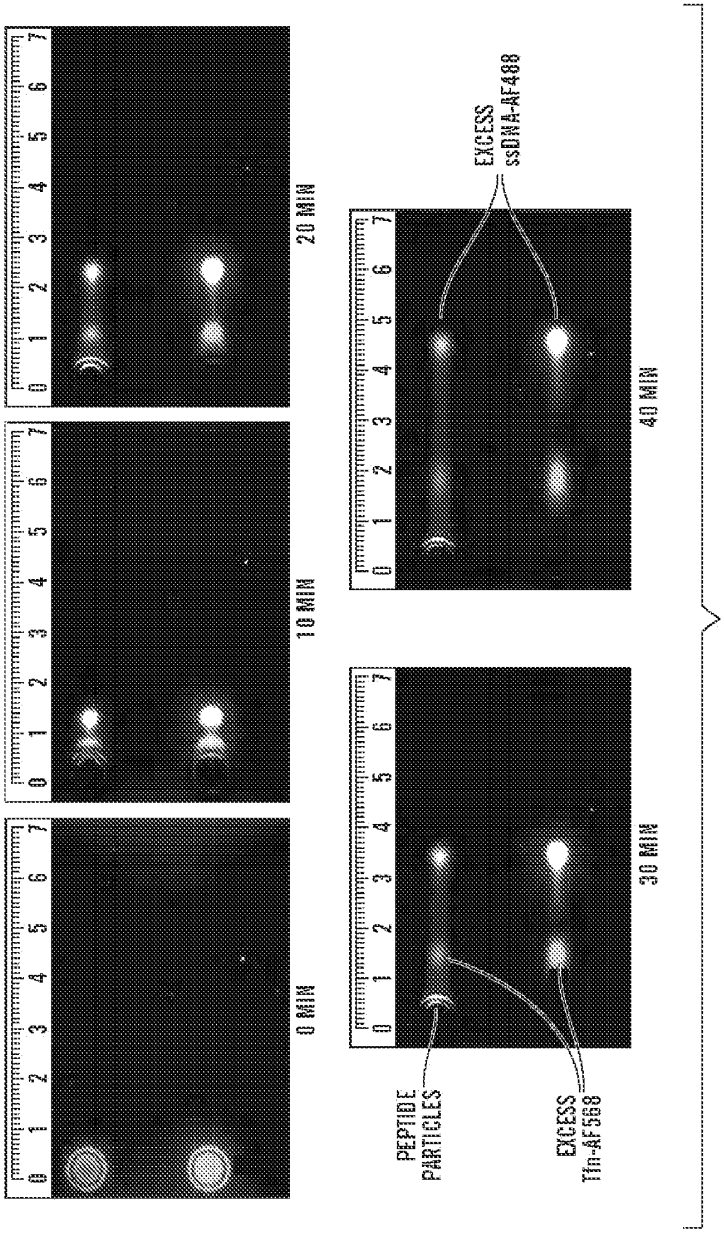

0 MIN
10 MIN
20 MIN
30 MIN
40 MIN
PEPTIDE PARTICLES
EXCESS Tfn-AF568
EXCESS ssDNA-AF488

FIG. 20A

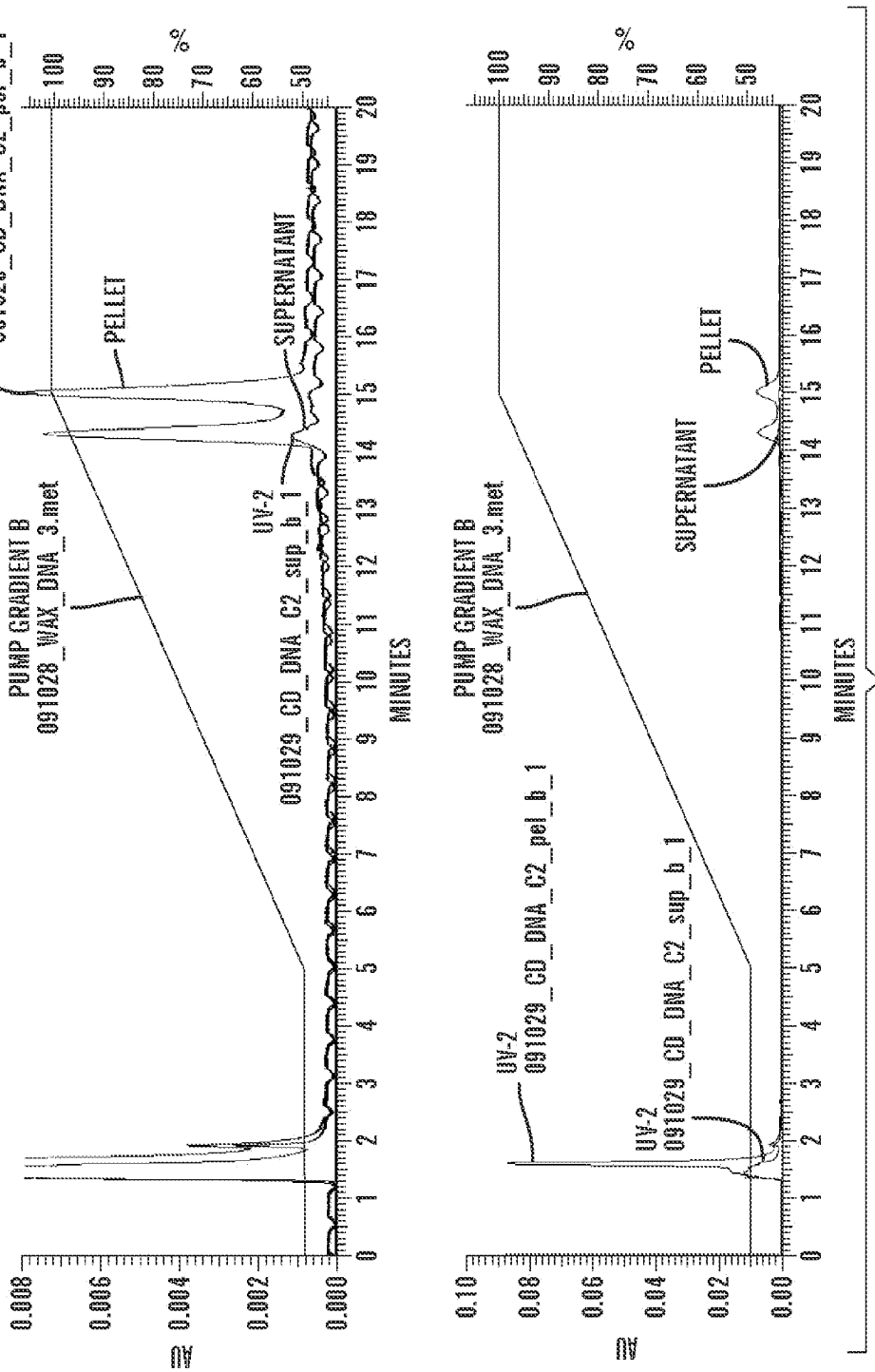
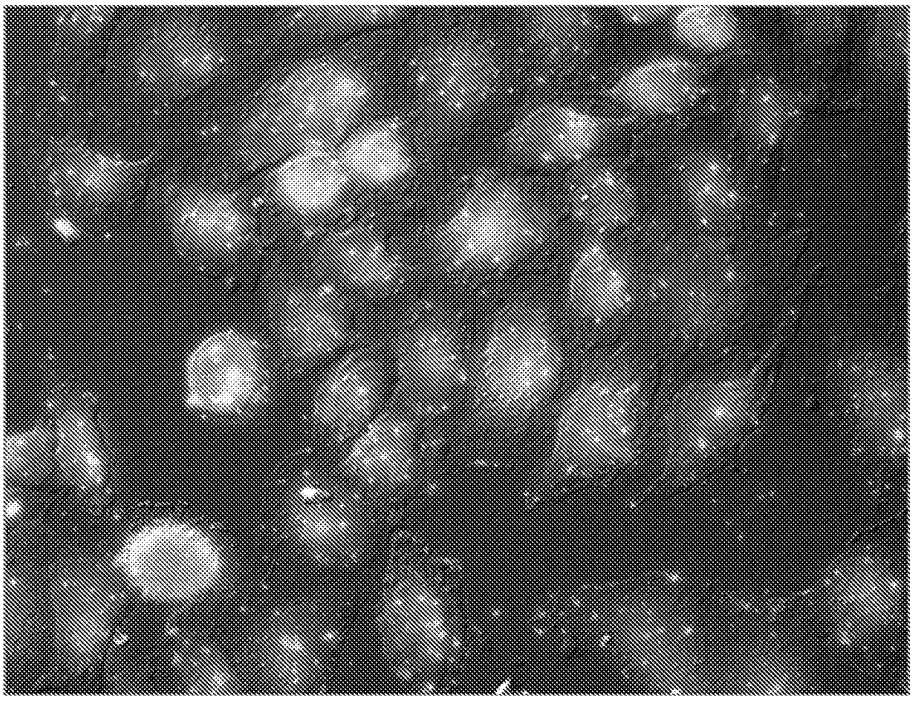

UV-2
091029_CD_DNA_C2_pel_b_1
PUMP GRADIENT B
091028_WAX_DNA_3.met
PELLET
SUPERNATANT
UV-2
091029_CD_DNA_C2_sup_b_1
%
AU
MINUTES

FIG. 20B

FIG. 21



5.13 µM CD3ac (Ac-LK(Ac)-LK(Ac)-LK(Ac)-LW-DL-LW-DL-LW-DL-LW-NH_2)
0.83 µM CD3 (H-LK-LK-LK-LW-DL-LW-DL-LW-DL-LW-NH_2)$^{4+}$
0.45 µM (5‘-TTGTGCCGCCTTTGCAGGTGTATC-3‘)$^{24-}$
20 nM (AF488-5‘-TTGTGCCGCCTTTGCAGGTGTATC-3‘)$^{24-}$
4.14 ug/mL Tfn-AF568

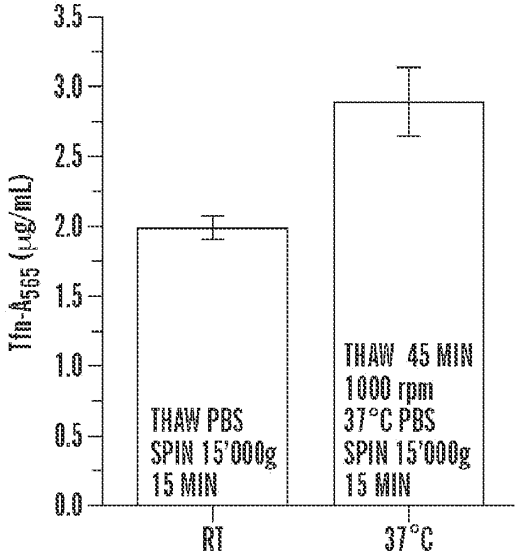


FIG. 22A

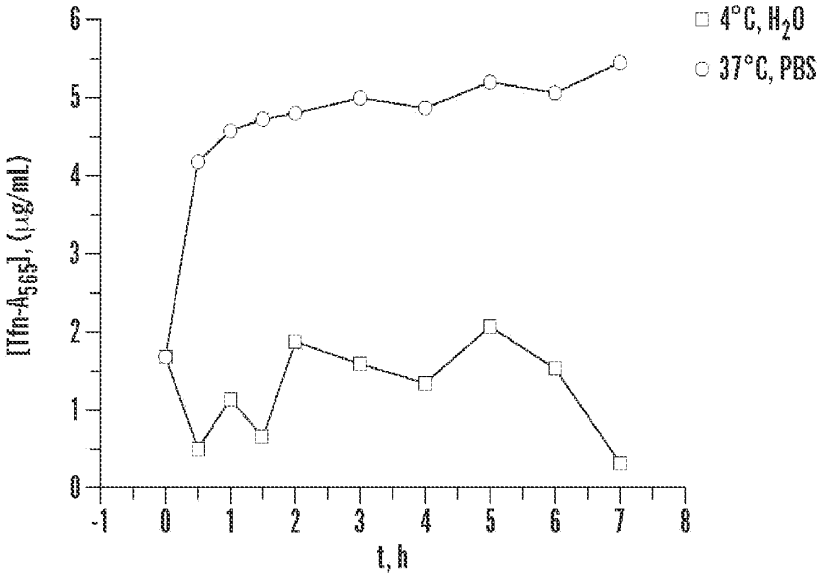


FIG. 22B

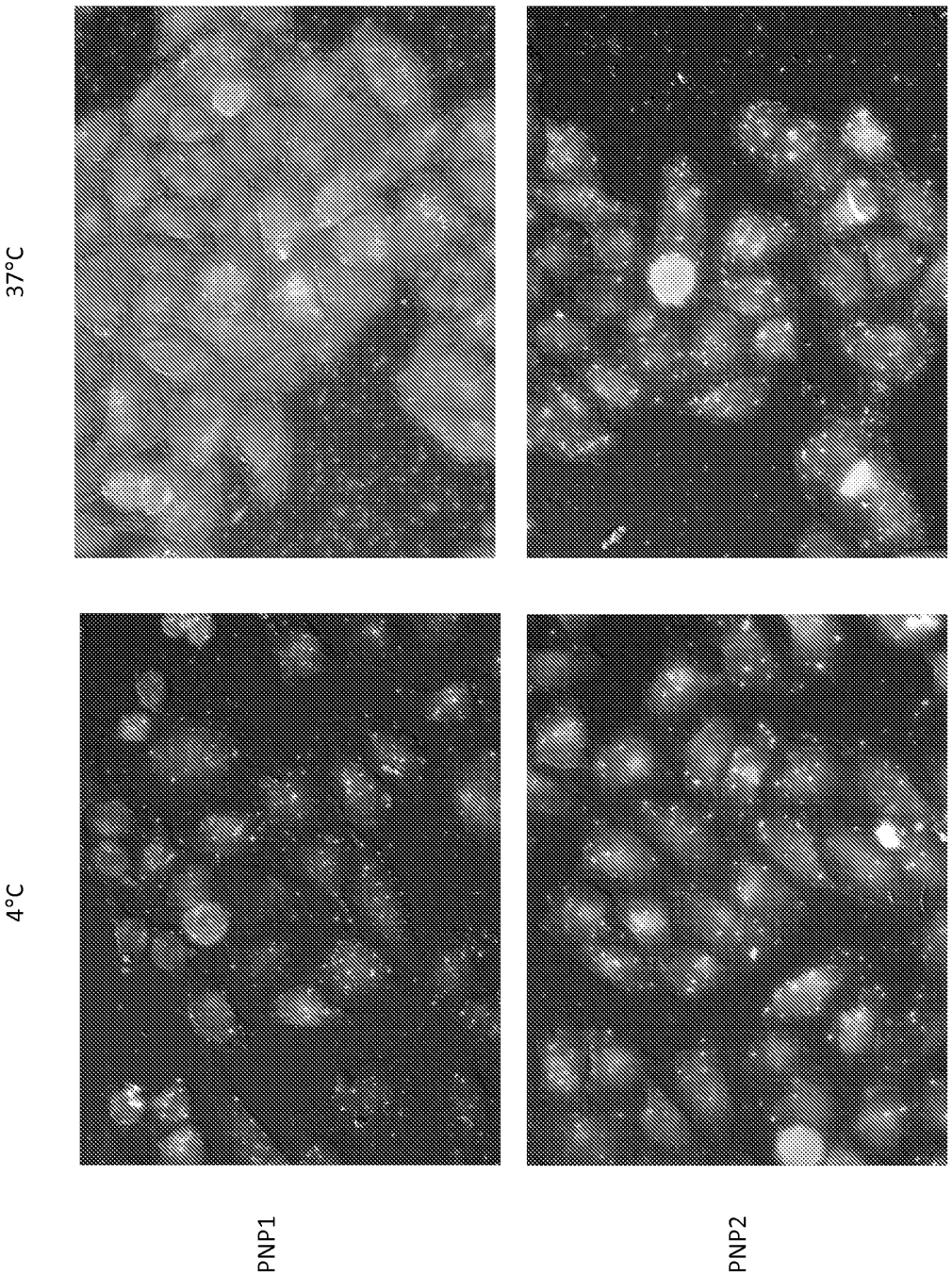


FIG. 22C

FIG. 22D

