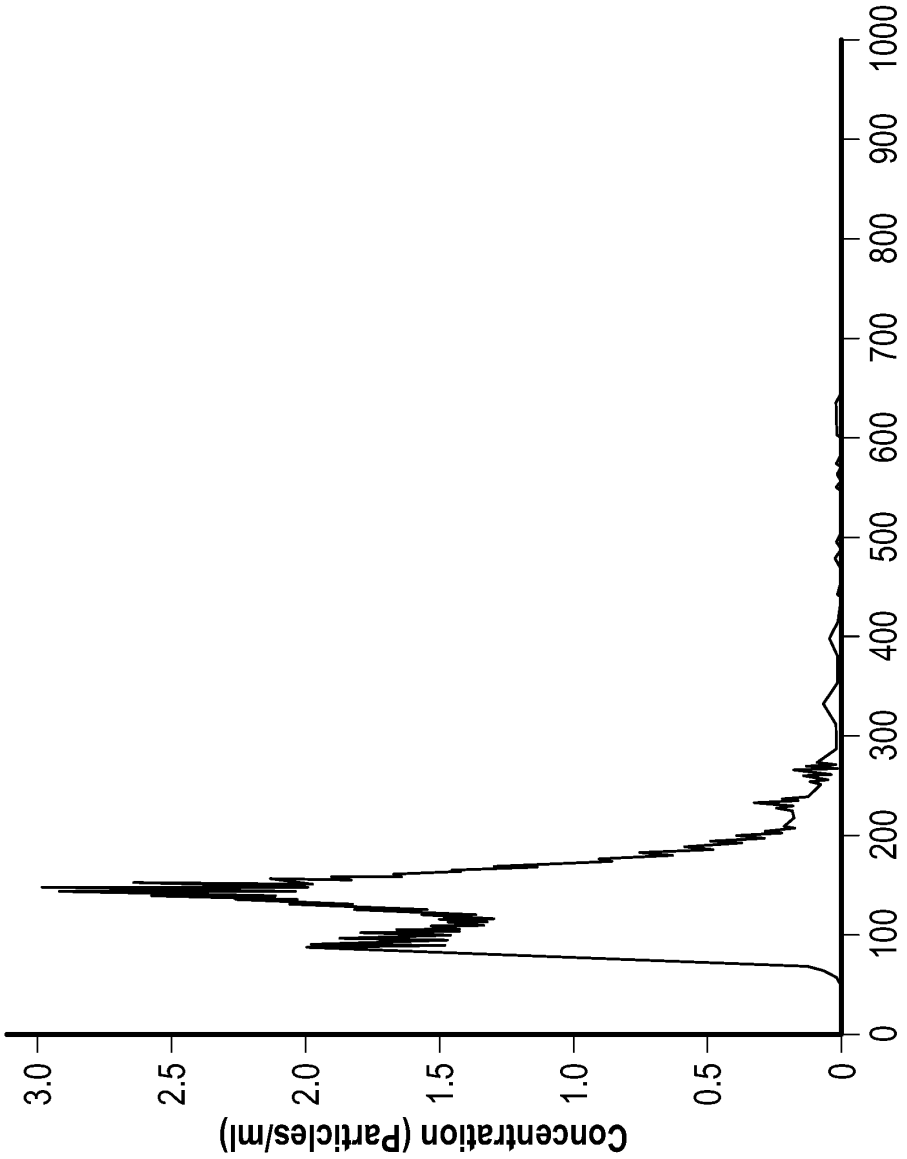

Concentration (Particles/ml)
3.0
2.5
2.0
1.5
1.0
0.5
0
0
100
200
300
400
500
600
700
800
900
1000
Size (nm)

FIG. 1A

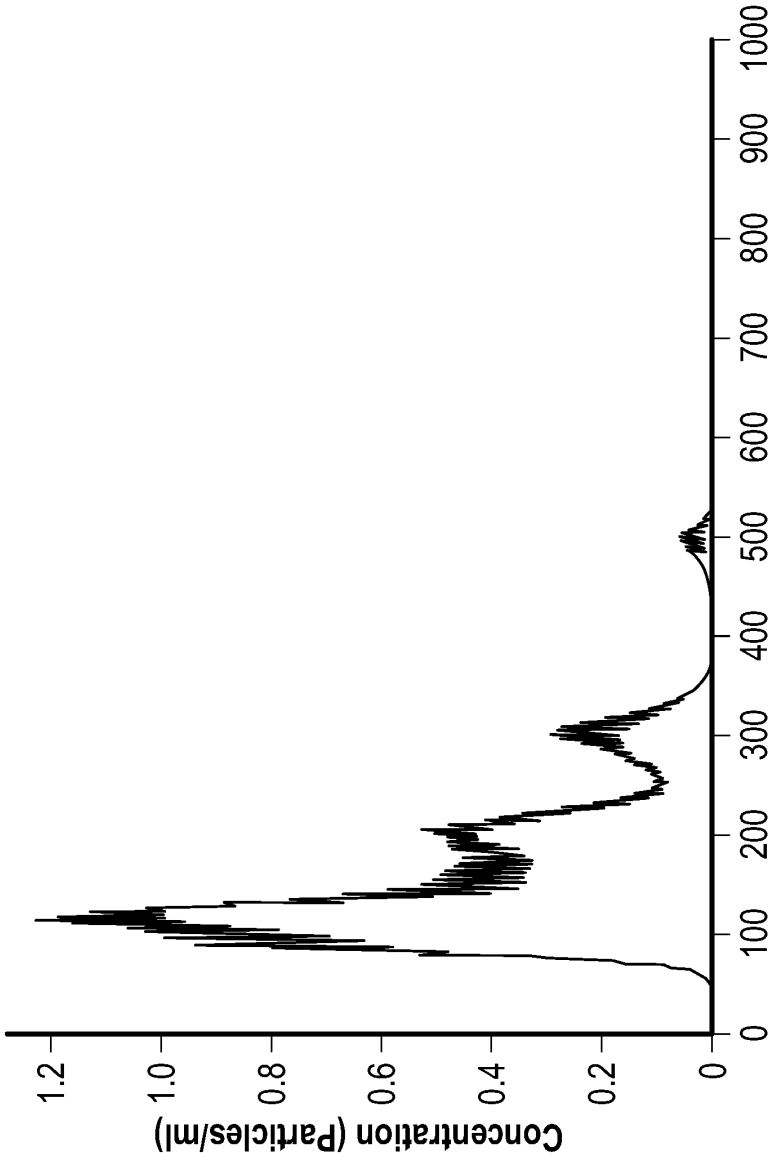

Concentration (Particles/ml)
1.2
1.0
0.8
0.6
0.4
0.2
0
0
100
200
300
400
500
600
700
800
900
1000
Size (nm)

FIG. 1B

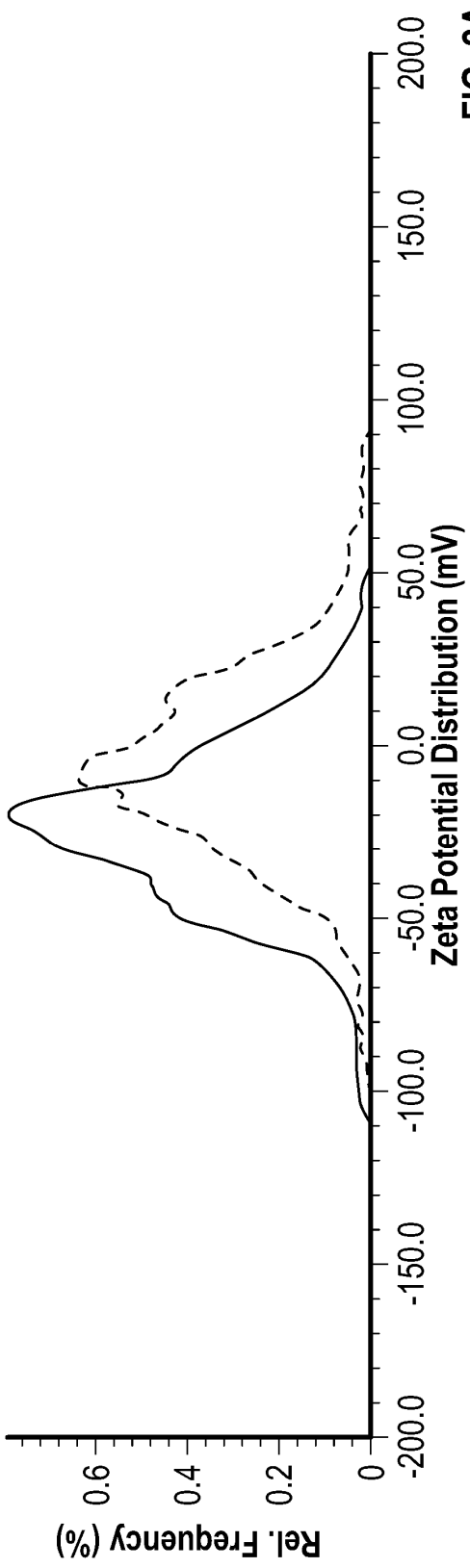

Rel. Frequency (%)
0
0.2
0.4
0.6
-200.0
-150.0
-100.0
-50.0
0.0
50.0
100.0
150.0
200.0
Zeta Potential Distribution (mV)

FIG. 2A

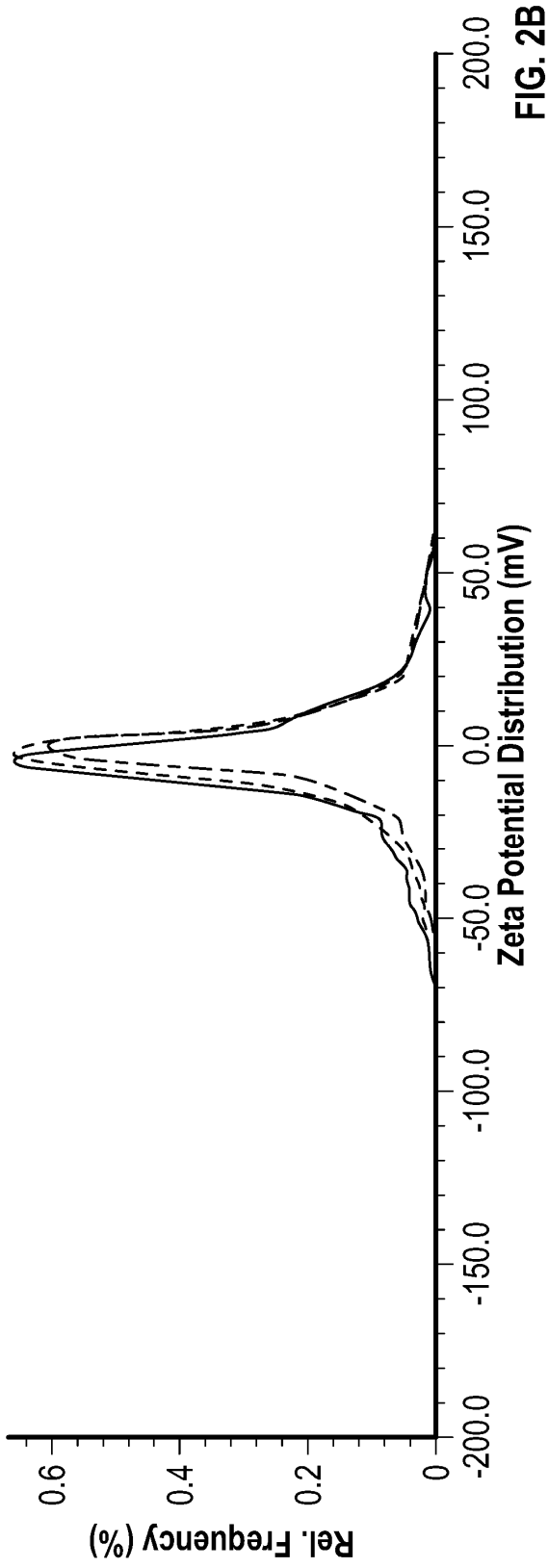

Rel. Frequency (%)
0
0.2
0.4
0.6
-200.0
-150.0
-100.0
-50.0
0.0
50.0
100.0
150.0
200.0
Zeta Potential Distribution (mV)

FIG. 2B

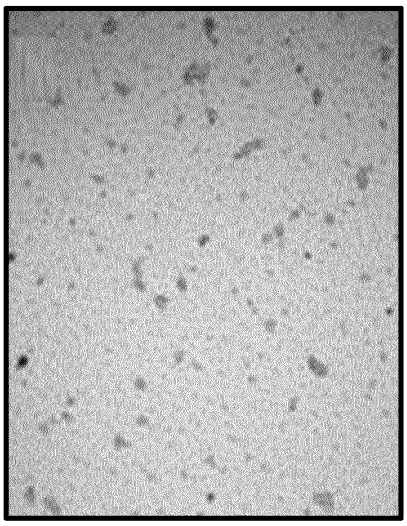


FIG. 3C



FIG. 3F



FIG. 3B

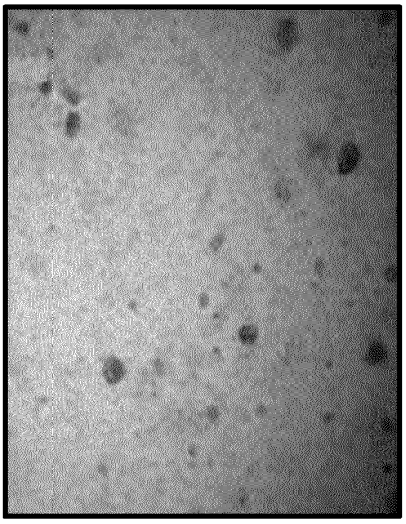


FIG. 3E



FIG. 3A



FIG. 3D

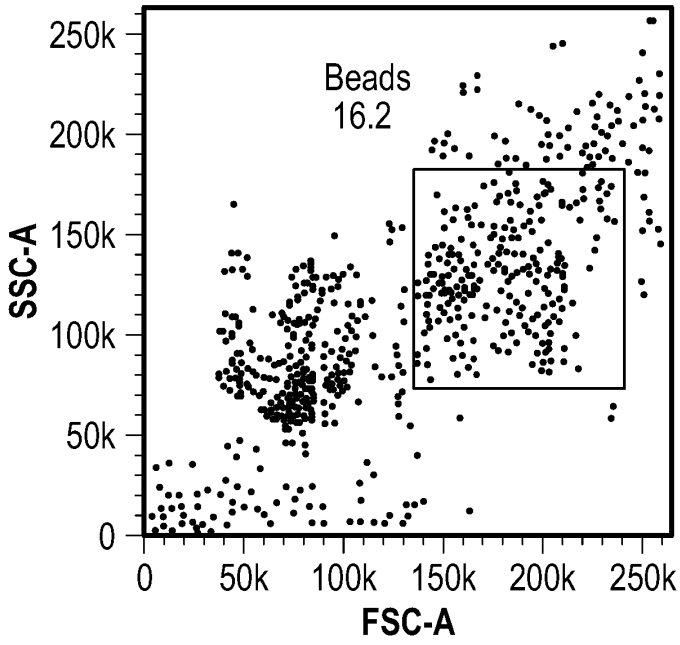

Beads
16.2
SSC-A
FSC-A
250k
200k
150k
100k
50k
0
0
50k
100k
150k
200k
250k

FIG. 4A

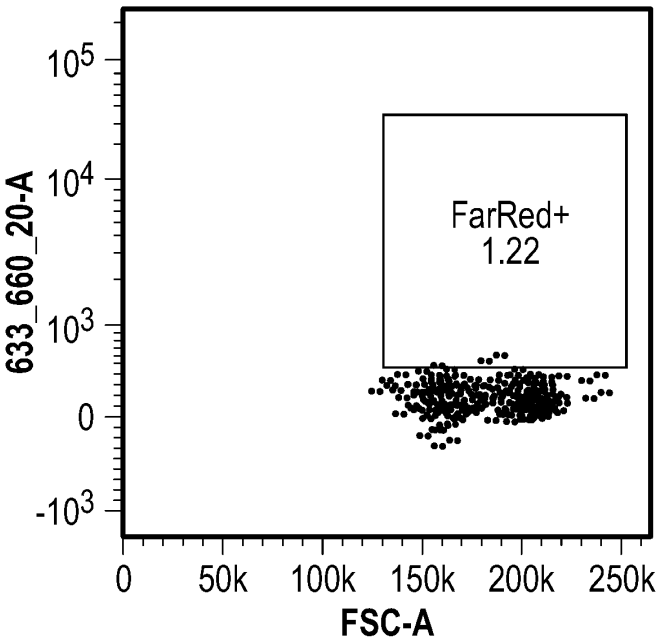

FarRed+
1.22
633_660_20-A
FSC-A
$10^5$
$10^4$
$10^3$
0
$-10^3$
0
50k
100k
150k
200k
250k

FIG. 4B

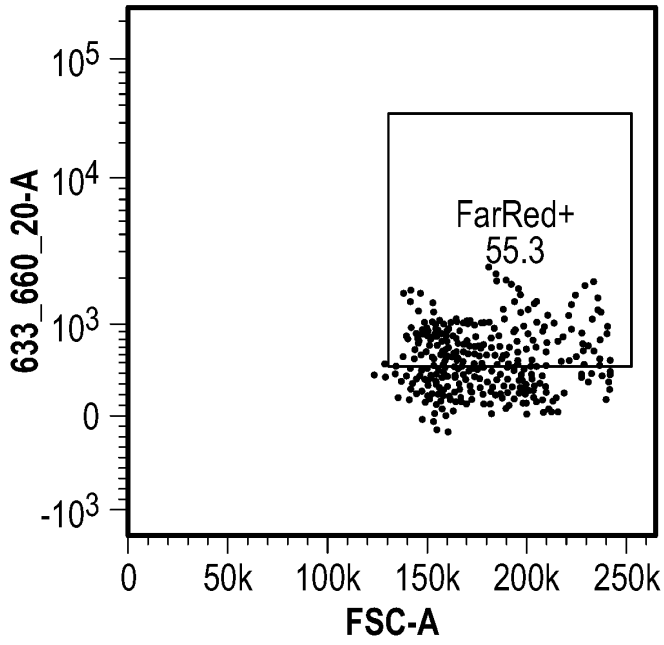

633_660_20-A
$10^5$
$10^4$
$10^3$
0
$-10^3$
FarRed+
55.3
0
50k
100k
150k
200k
250k
FSC-A

FIG. 4C

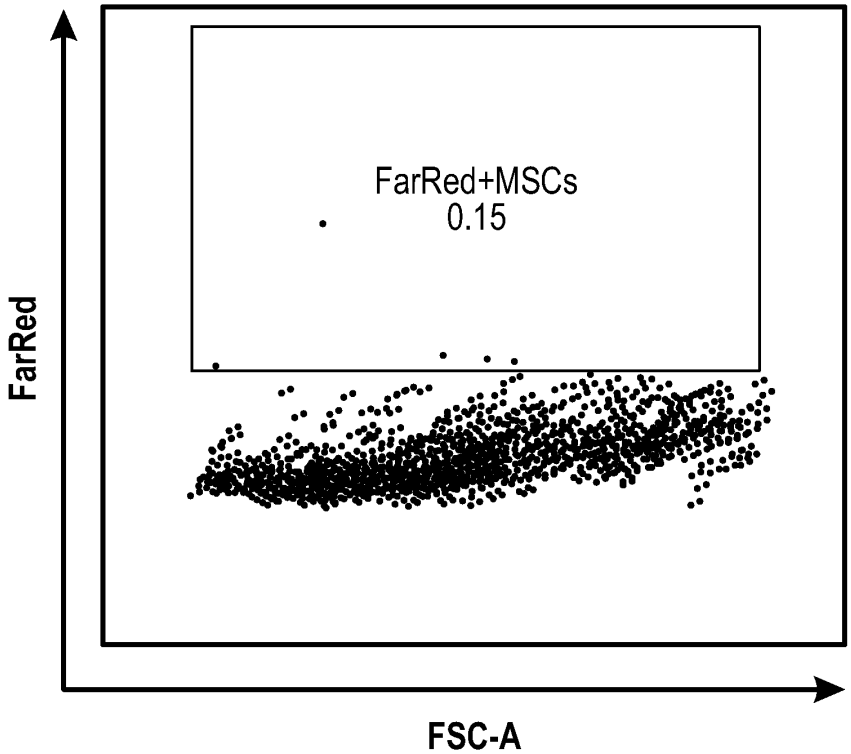

FarRed
FarRed+MSCs
0.15
FSC-A

FIG. 4D

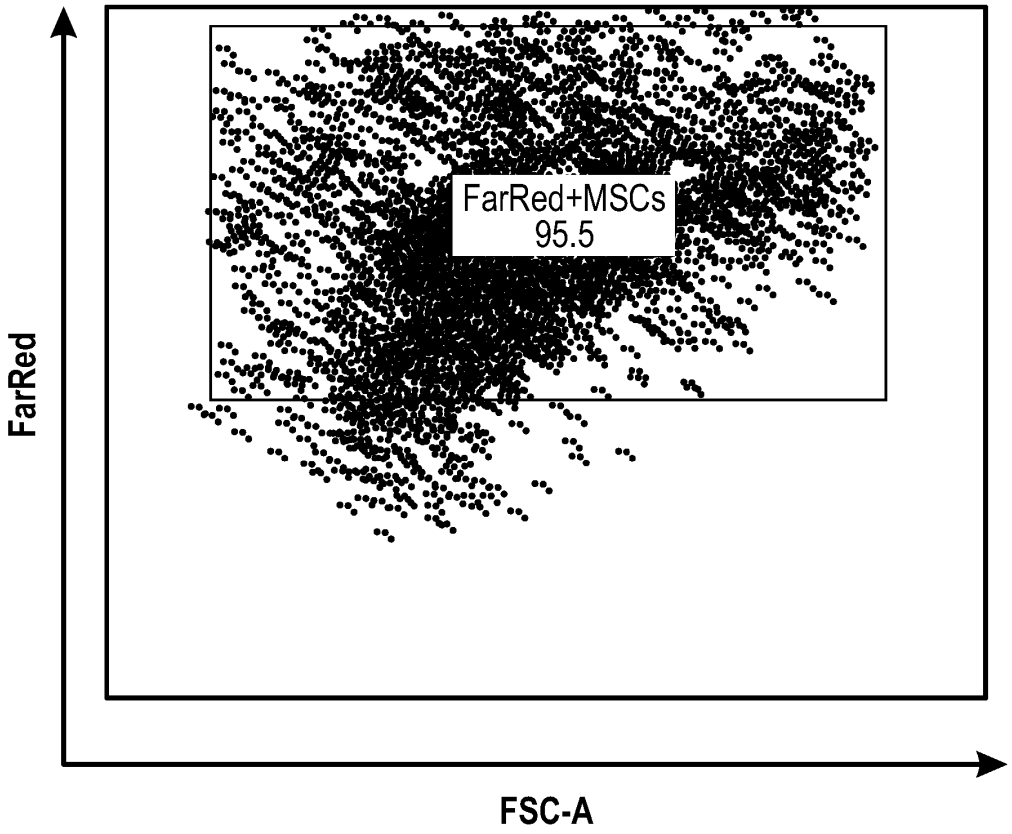



FIG. 4E

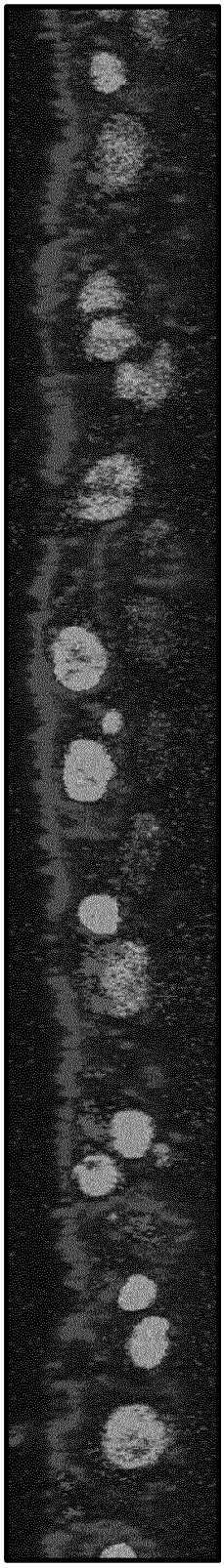


FIG. 5A

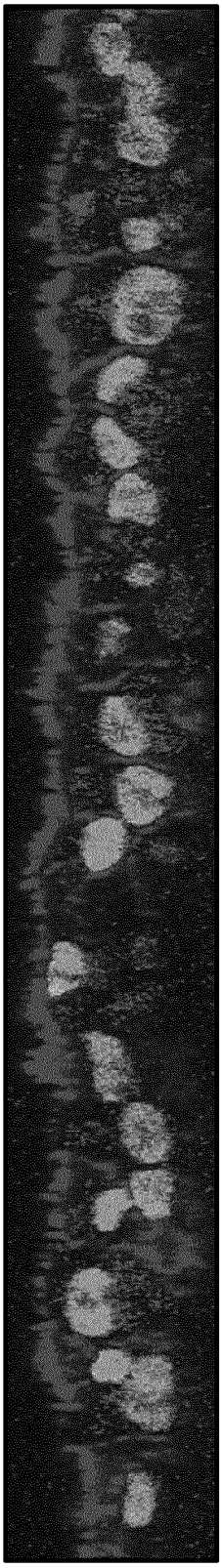


FIG. 5B

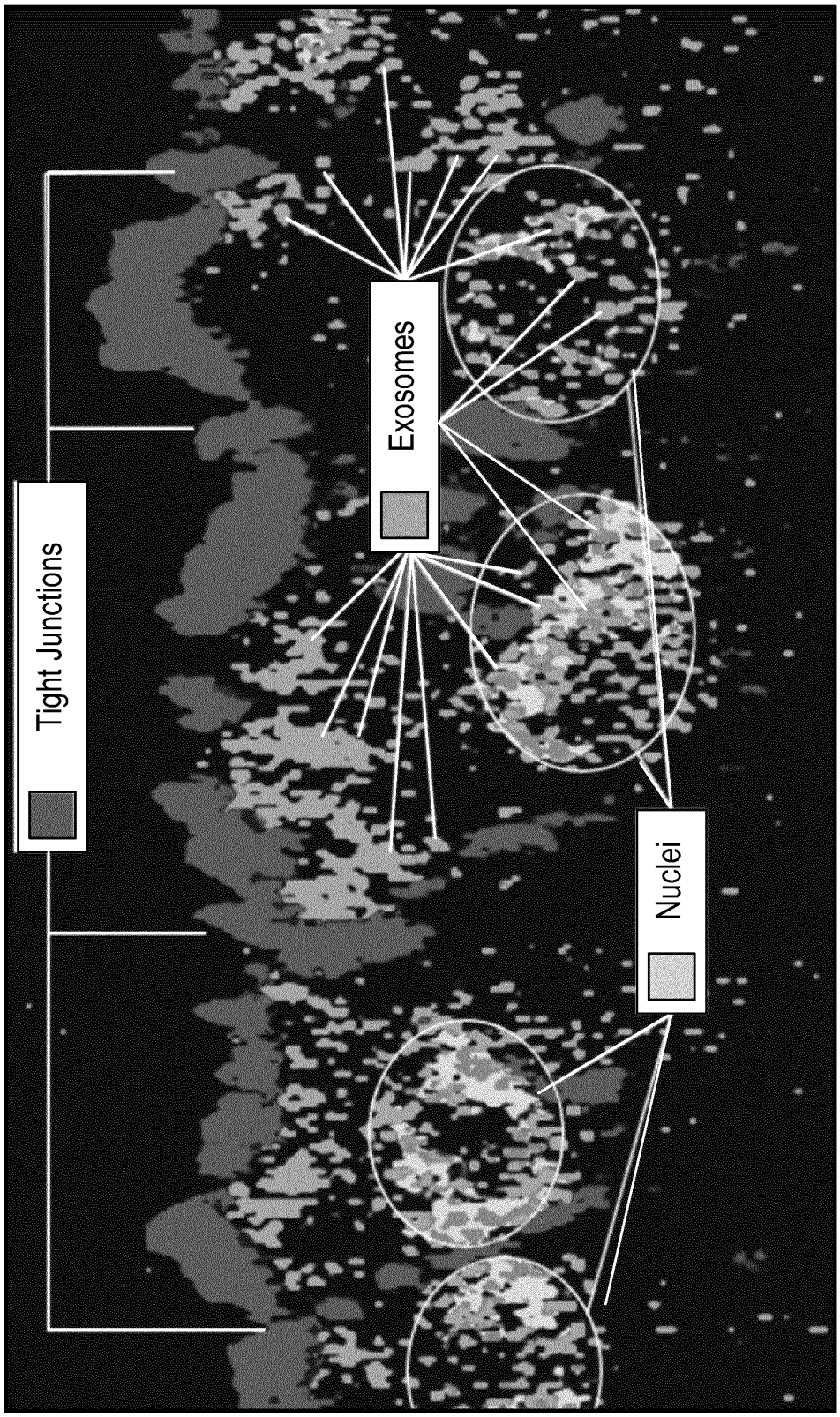



FIG. 5C

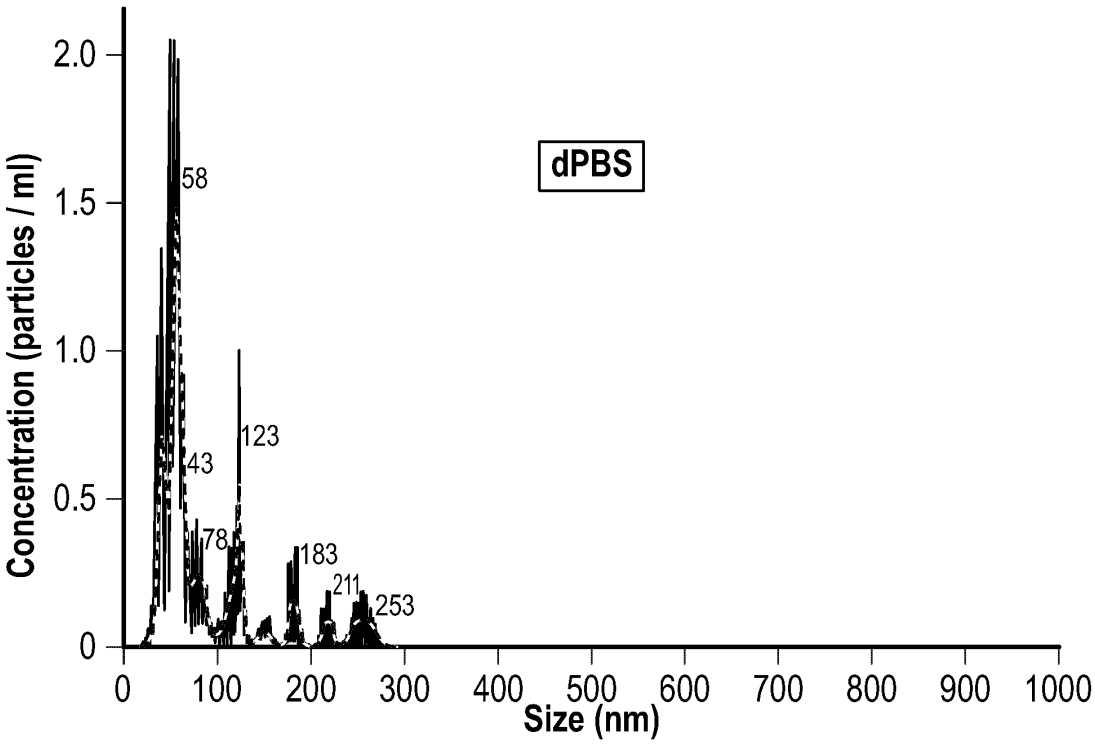

dPBS
Concentration (particles / ml)
Size (nm)
58
43
123
78
183
211
253

FIG. 6a

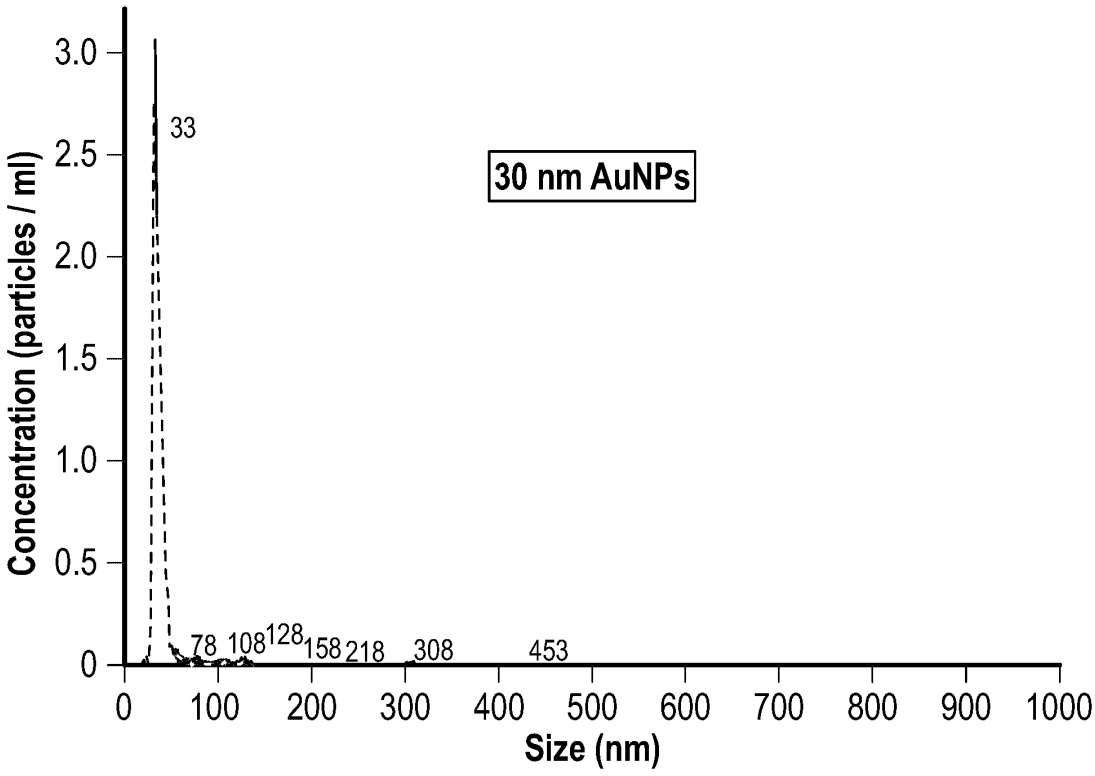

30 nm AuNPs
Concentration (particles / ml)
Size (nm)
33
78
108
128
158
218
308
453

FIG. 6b

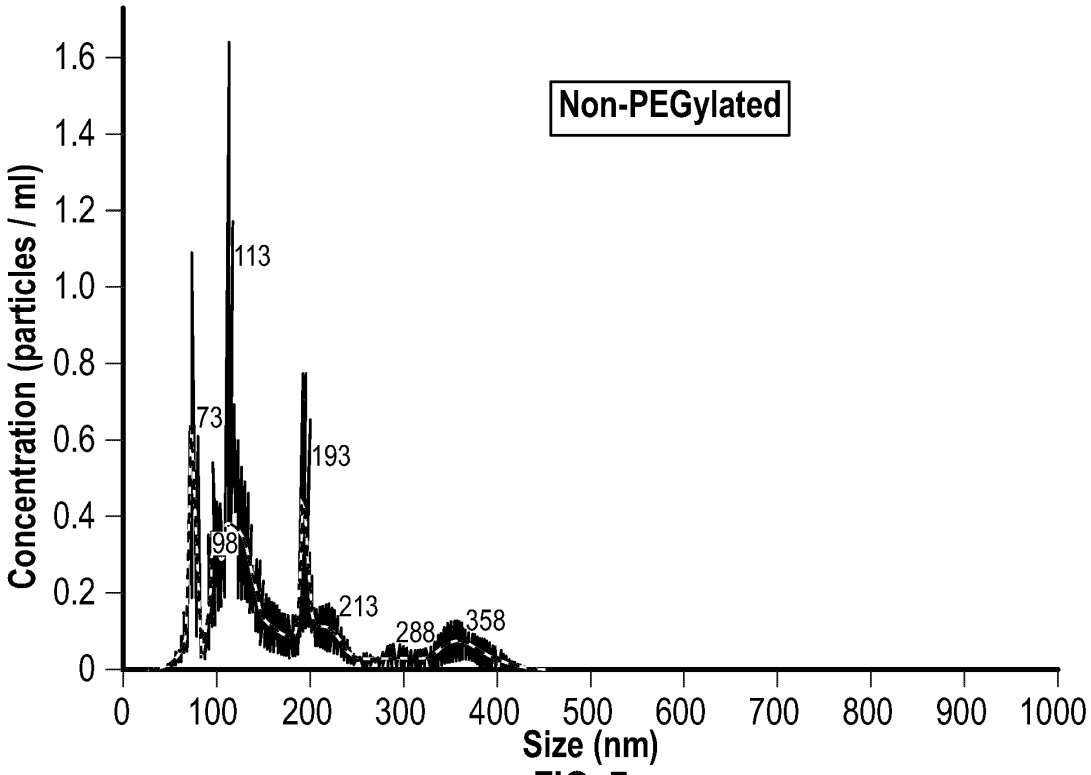

Non-PEGylated
Concentration (particles / ml)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0
73
113
193
98
213
288
358
0
100
200
300
400
500
600
700
800
900
1000
Size (nm)

FIG. 7a

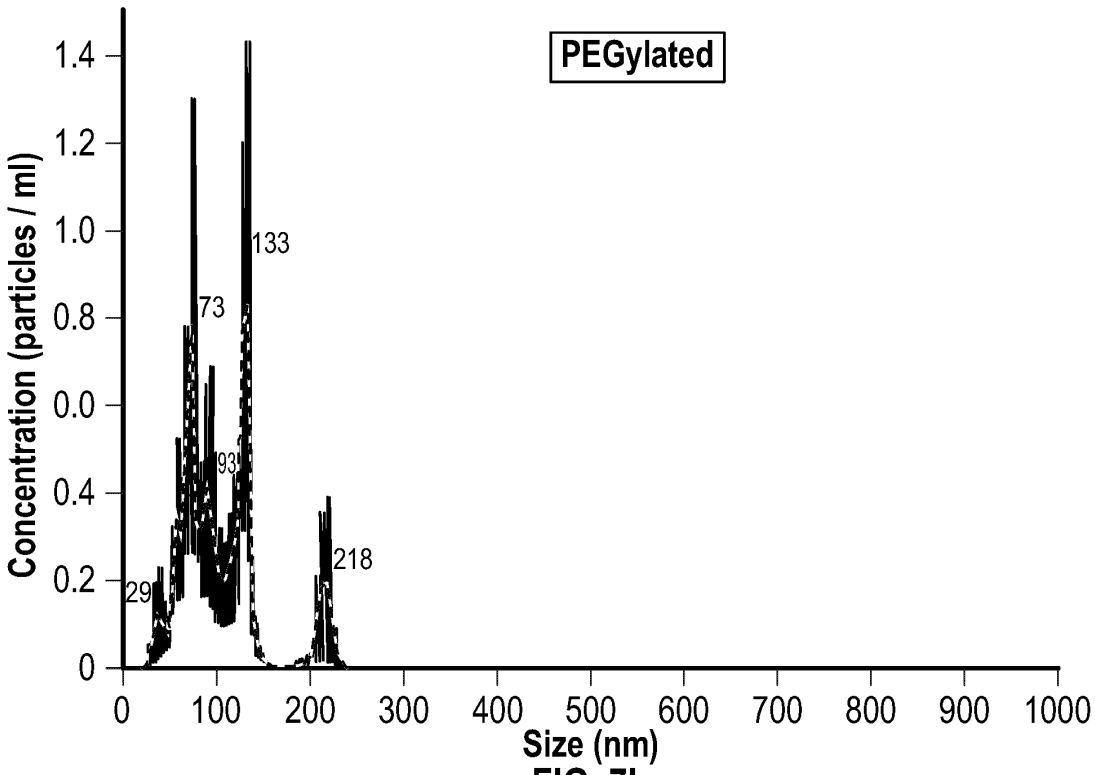

PEGylated
Concentration (particles / ml)
1.4
1.2
1.0
0.8
0.0
0.4
0.2
0
133
73
93
218
29
0
100
200
300
400
500
600
700
800
900
1000
Size (nm)

FIG. 7b

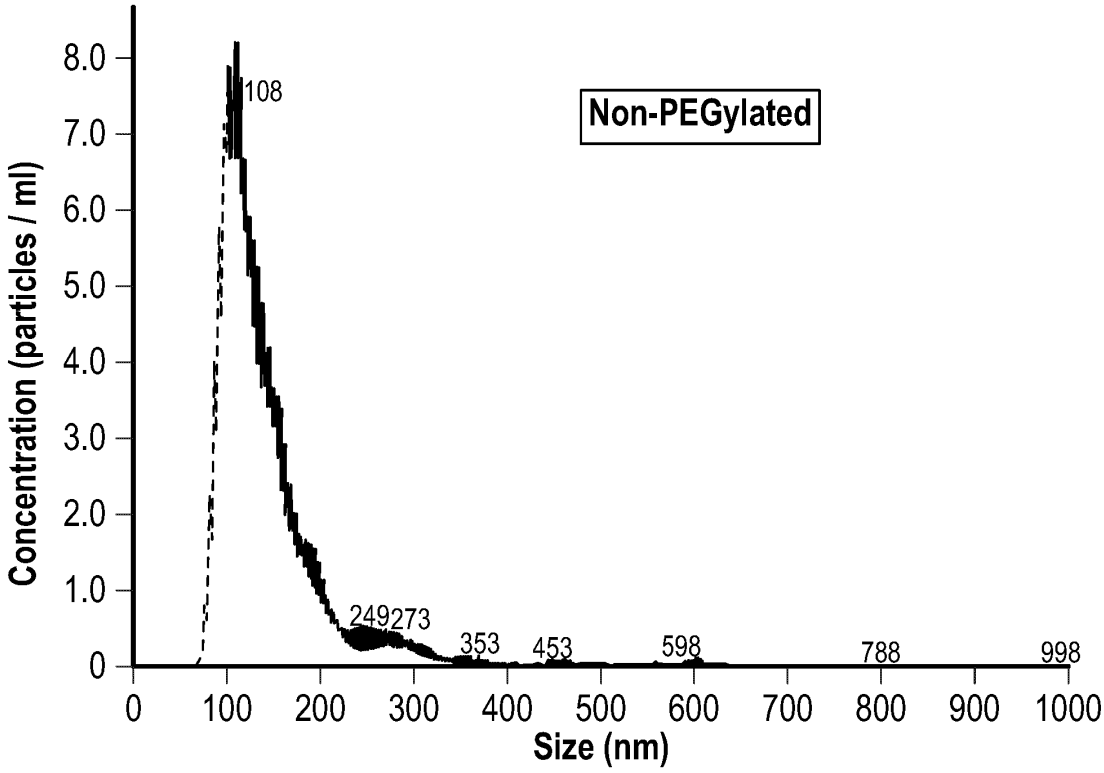

Non-PEGylated
Concentration (particles / ml)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0
108
249
273
353
453
598
788
998
0
100
200
300
400
500
600
700
800
900
1000
Size (nm)

FIG. 8a

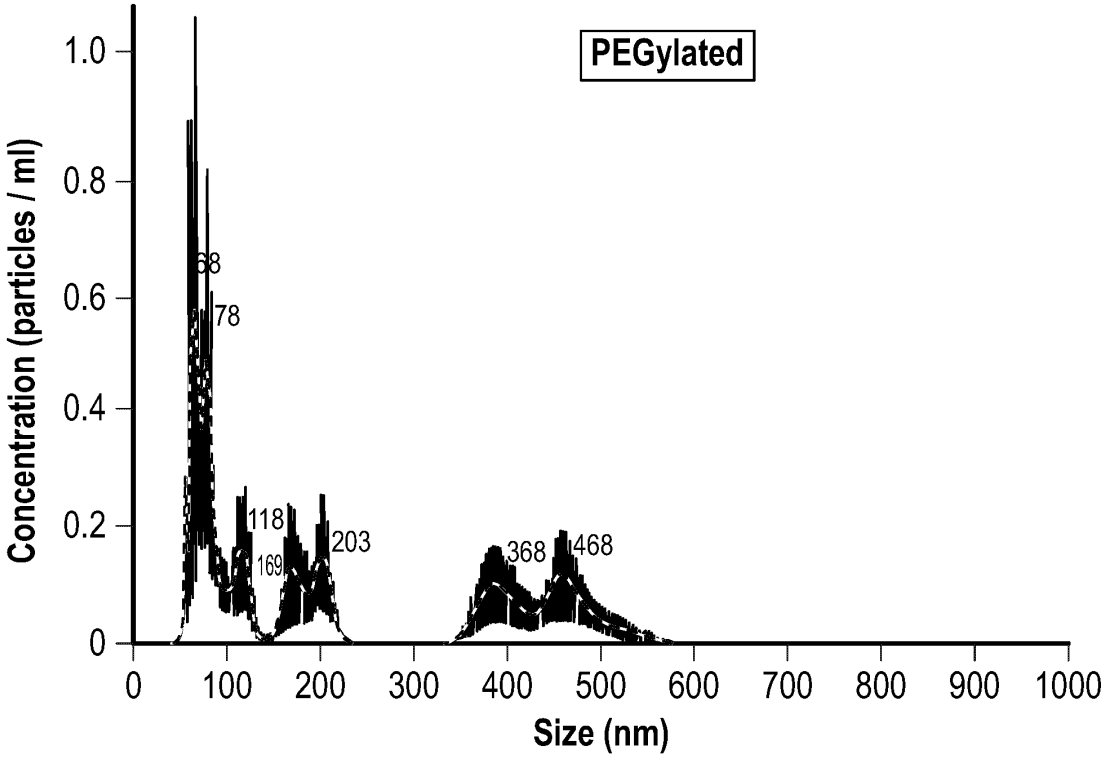

PEGylated
Concentration (particles / ml)
1.0
0.8
0.6
0.4
0.2
0
68
78
118
169
203
368
468
0
100
200
300
400
500
600
700
800
900
1000
Size (nm)

FIG. 8b

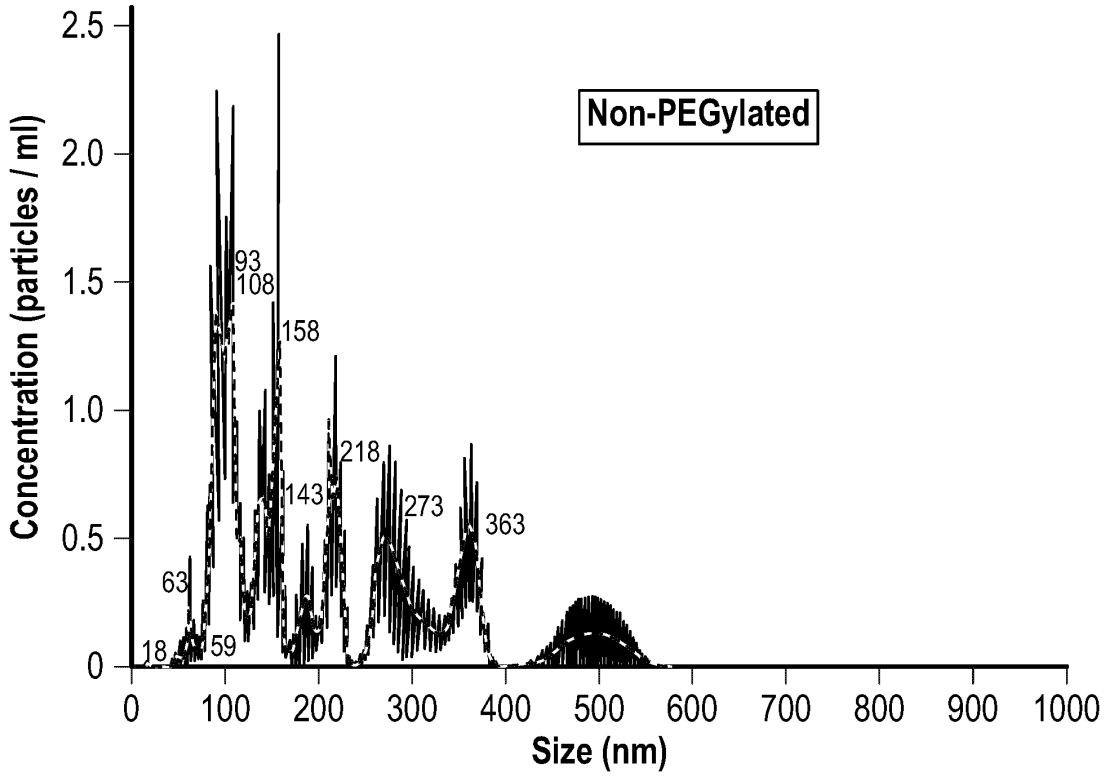

Non-PEGylated
Concentration (particles / ml)
Size (nm)
2.5
2.0
1.5
1.0
0.5
0
0
100
200
300
400
500
600
700
800
900
1000
18
59
63
93
108
143
158
218
273
363

FIG. 9

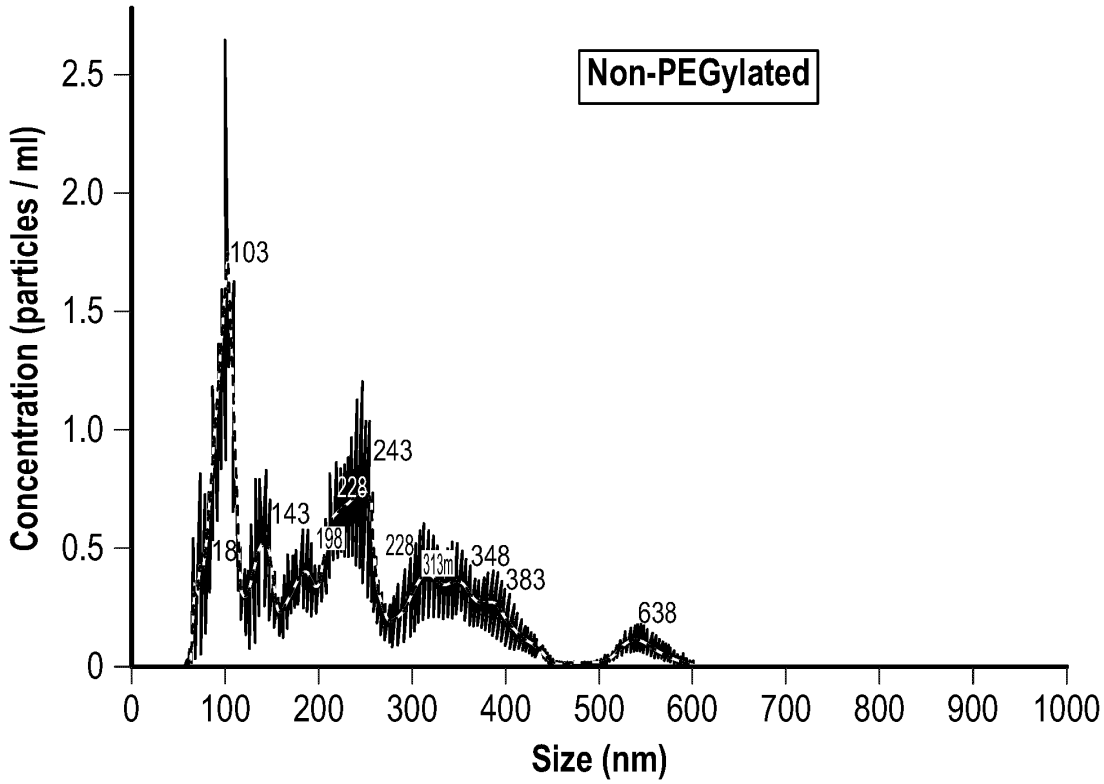

Non-PEGylated
Concentration (particles / ml)
Size (nm)
2.5
2.0
1.5
1.0
0.5
0
0
100
200
300
400
500
600
700
800
900
1000
18
103
143
198
228
243
228
313m
348
383
638

FIG. 10

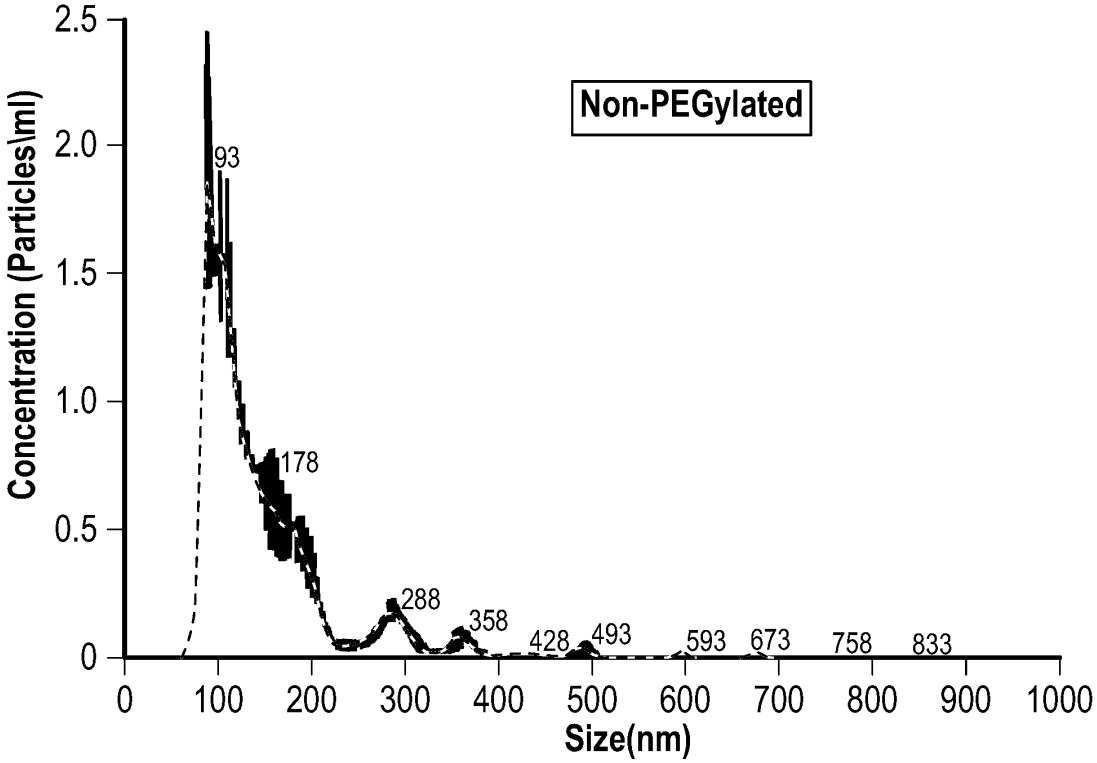



FIG. 11

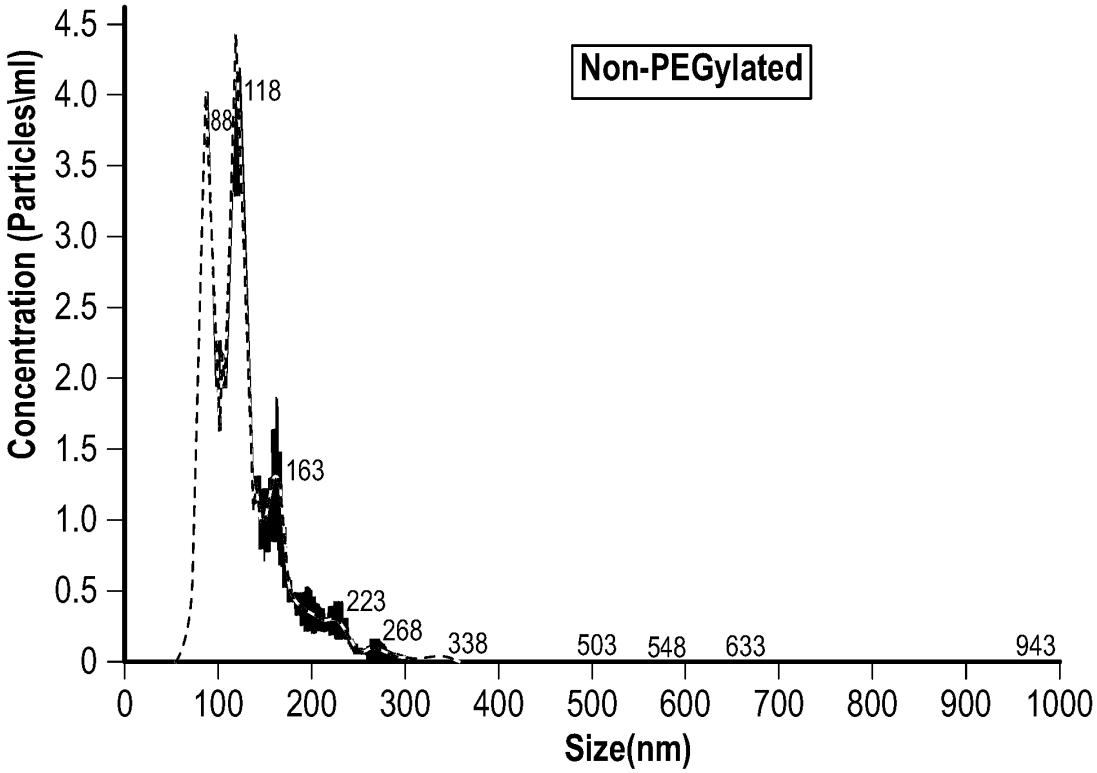



FIG. 12a

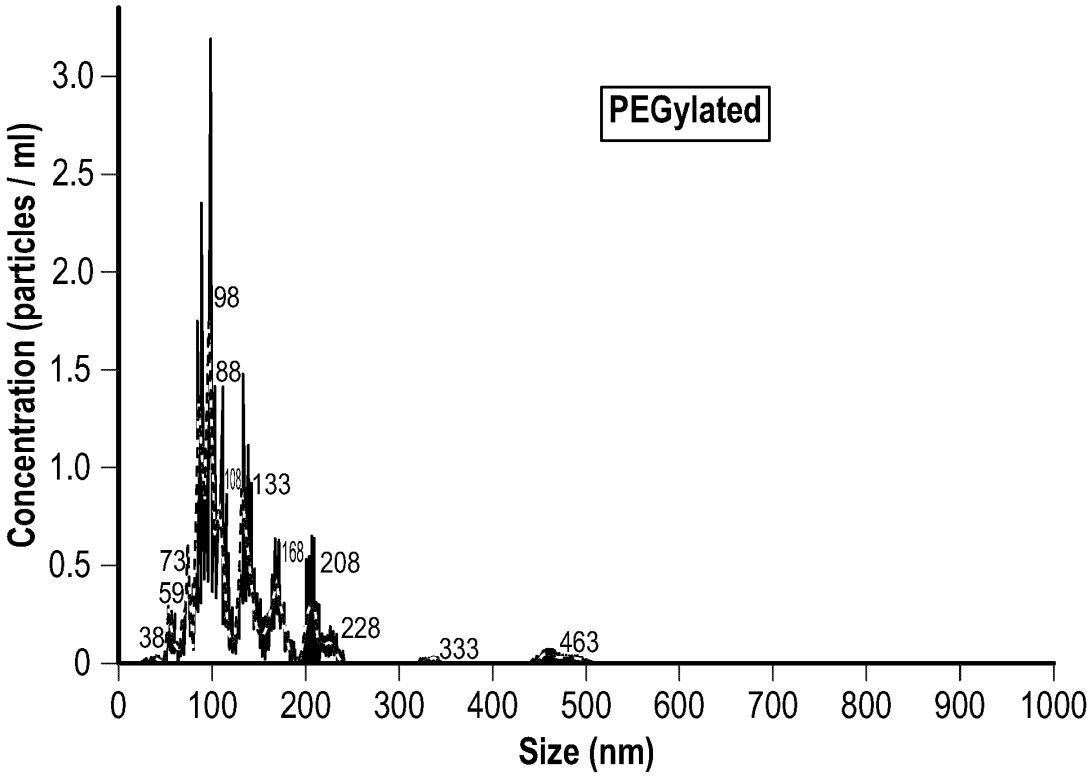



FIG. 12b

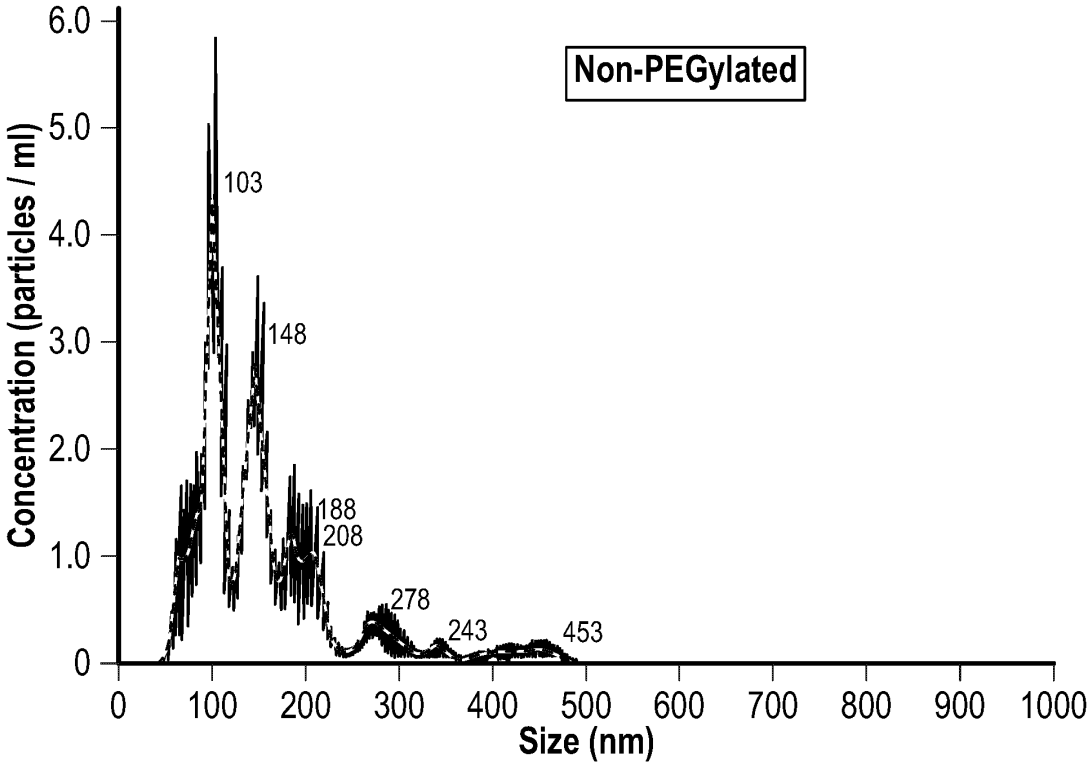
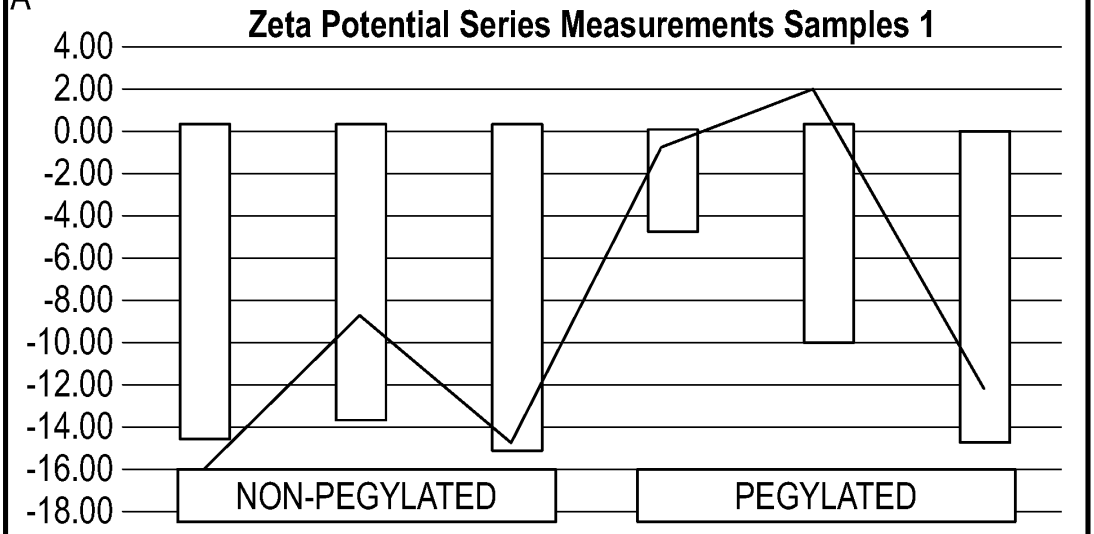


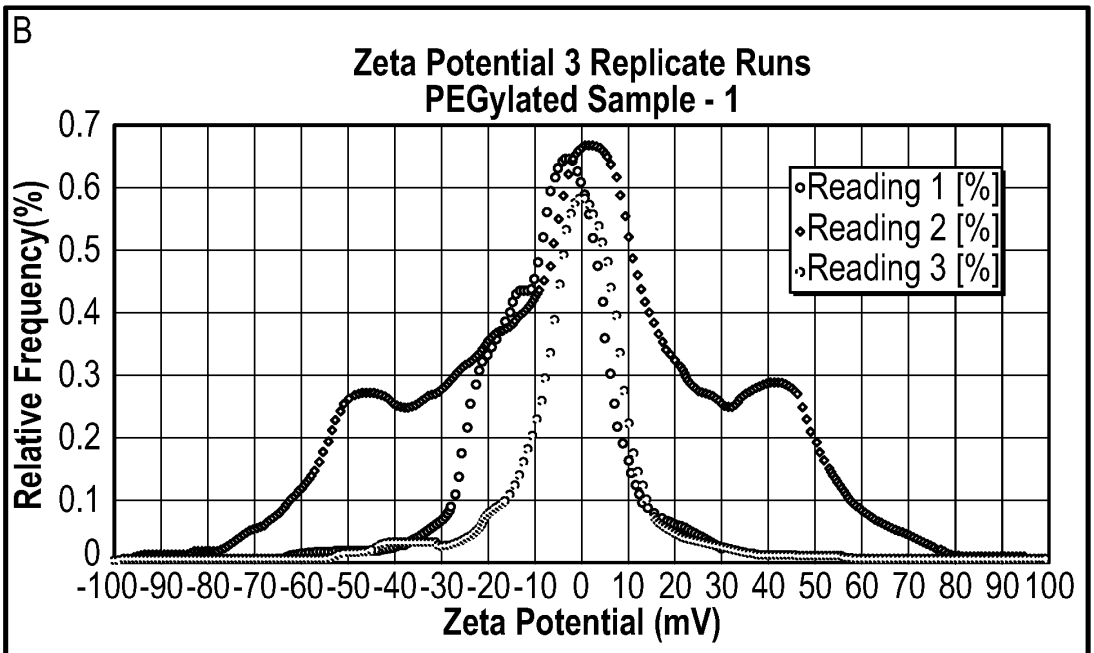

FIG. 13

A



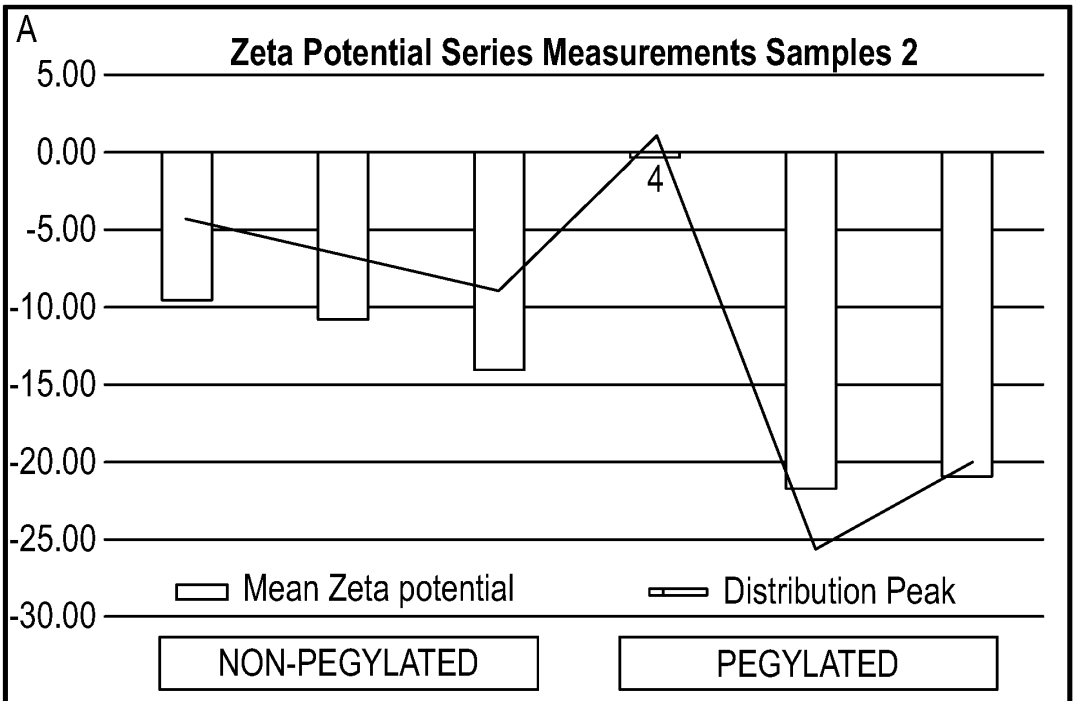

| Sample 1 | Mean Zeta Potential(mV) | Distribution Peak(mV) |
|---|---|---|
| | -14.62 | -15.72 |
| Non-PEGylated | -13.80 | -8.82 |
| | -15.22 | -14.87 |
| | -4.87 | -0.92 |
| Pegylated | -9.98 | -1.89 |
| | -14.87 | -11.32 |

FIG. 14a



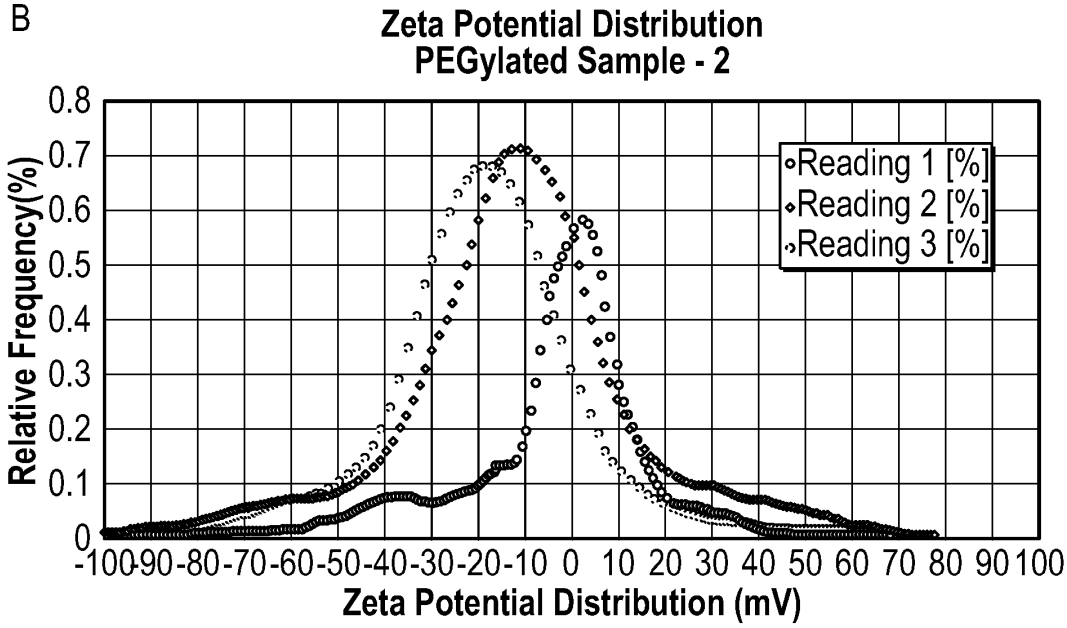

| Sample 1 PEGylated Replicates | Reading 1 | Reading 2 | Reading 3 |
|---|---|---|---|
| Mean Zeta Potential(mv) | -6.85 | -10.98 | -24.52 |
| Standard Deviation(mv) | 0.59 | 0.52 | 1.13 |
| Distribution Peak | -2.69 | 1.85 | 0 |

FIG. 14b




| Sample 2 | Mean Zeta Potential(mV) | Distribution Peak(mV) |
|---|---|---|
| | -9.79 | -4.63 |
| Non-PEGylated | -10.93 | -6.65 |
| | -14.15 | -9.22 |
| | -0.40 | -0.92 |
| Pegylated | -21.97 | -26.04 |
| | -21.49 | -20.38 |

FIG. 15a




| Sample 2 PEGylated Replicates | Reading 1 | Reading 2 | Reading 3 |
|---|---|---|---|
| Mean Zeta Potential(mV) | -2.69 | -14.60 | -5.36 |
| Standard Deviation(mV) | 0.96 | 0.72 | 0.42 |
| Distribution Peak | -2.71 | -20 | -8.31 |

FIG. 15b

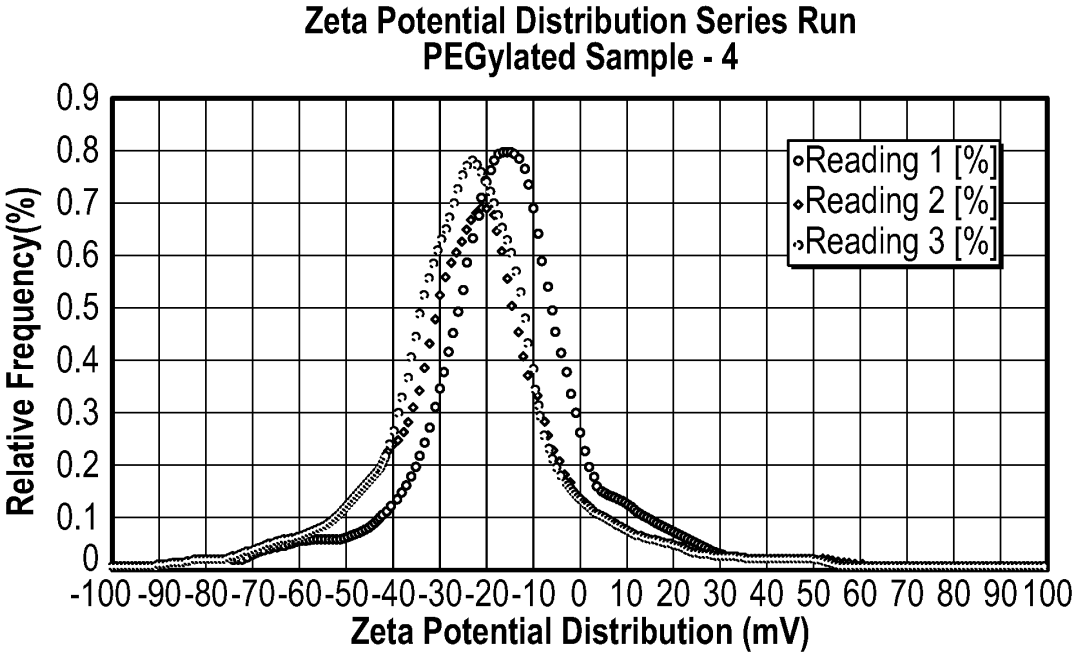

Zeta Potential Distribution Series Run
PEGylated Sample - 4
Relative Frequency(%)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100
Zeta Potential Distribution (mV)
Reading 1 [%]
Reading 2 [%]
Reading 3 [%]

FIG. 16

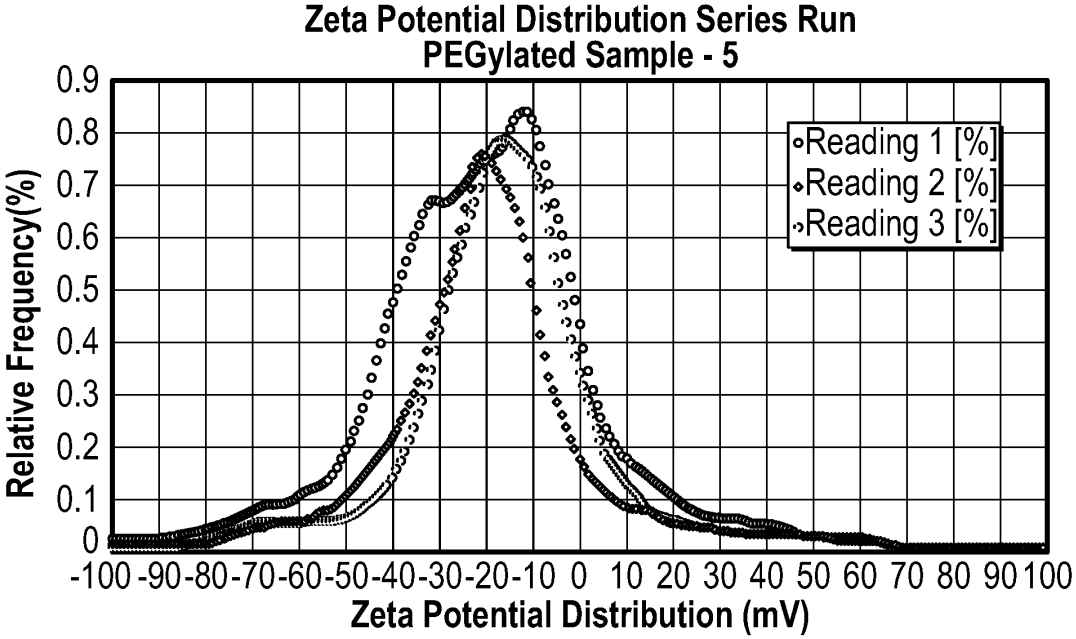
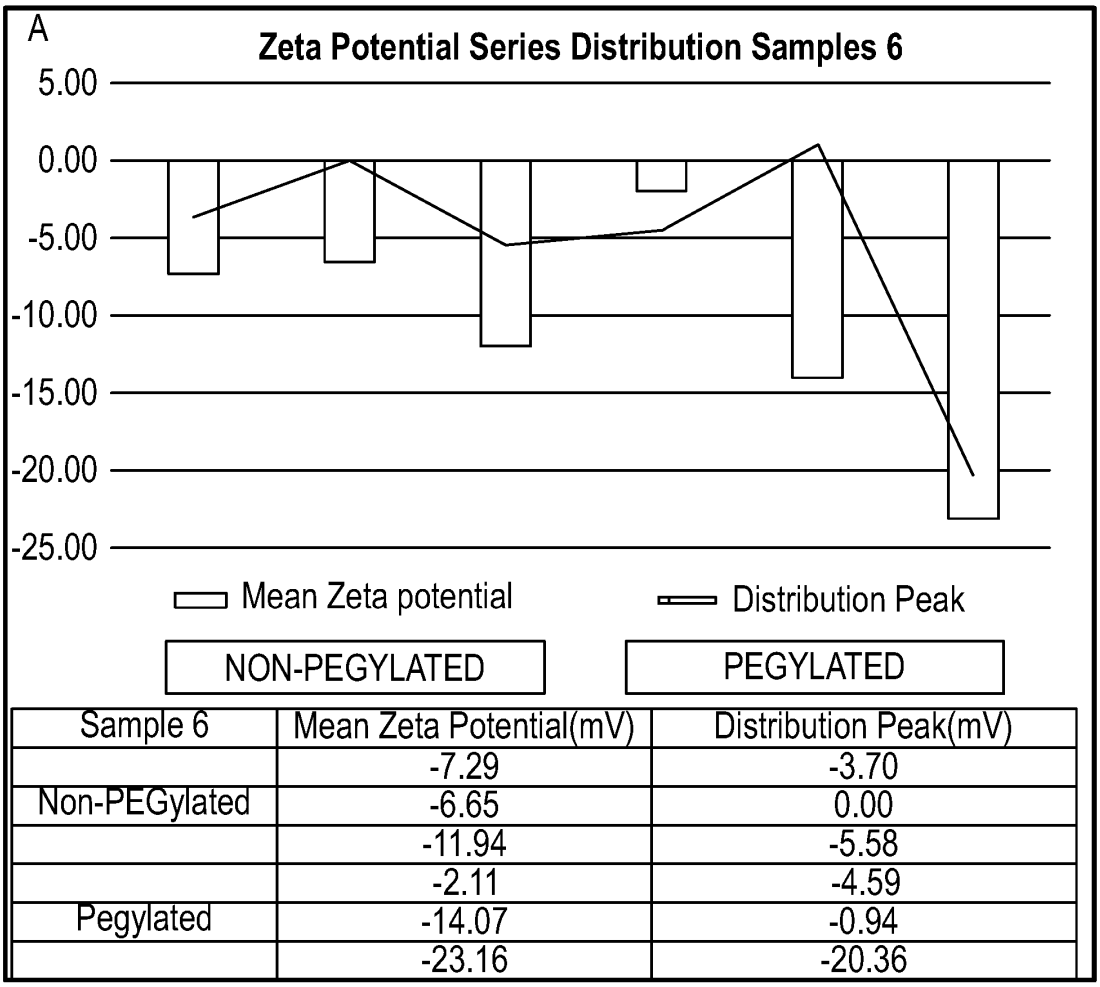
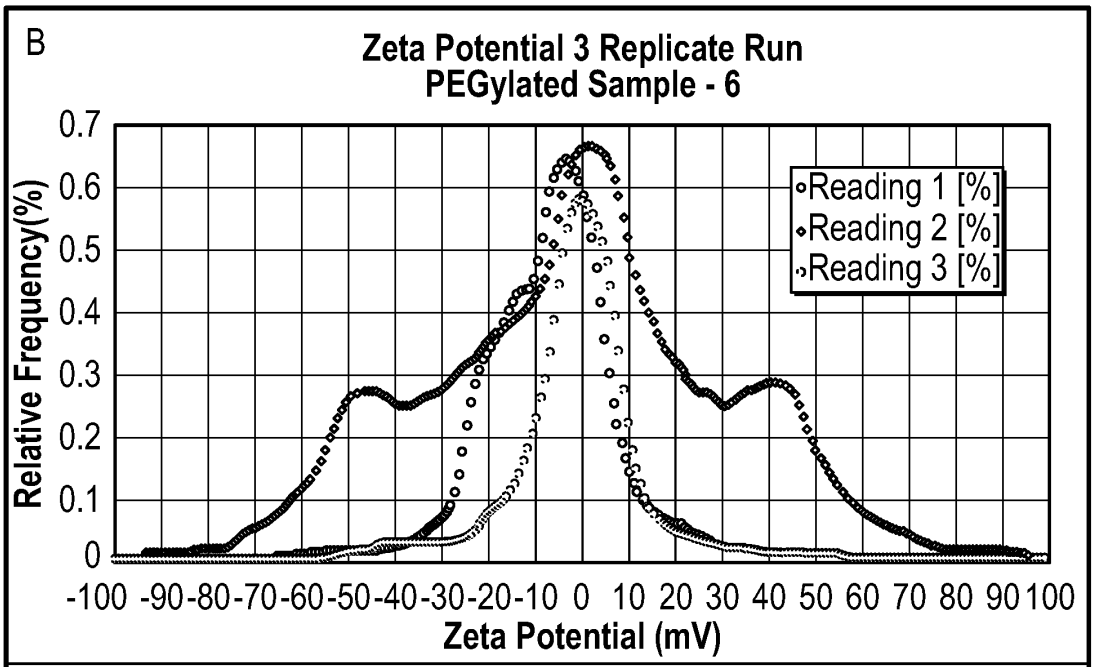

Zeta Potential Distribution Series Run
PEGylated Sample - 5
Relative Frequency(%)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100
Zeta Potential Distribution (mV)
Reading 1 [%]
Reading 2 [%]
Reading 3 [%]

FIG. 17




| Sample 6 | Mean Zeta Potential(mV) | Distribution Peak(mV) |
|---|---|---|
| | -7.29 | -3.70 |
| Non-PEGylated | -6.65 | 0.00 |
| | -11.94 | -5.58 |
| | -2.11 | -4.59 |
| Pegylated | -14.07 | -0.94 |
| | -23.16 | -20.36 |

FIG. 18a




| Sample 6 PEGylated Replicates | Reading 1 | Reading 2 | Reading 3 |
|---|---|---|---|
| Mean Zeta Potential(mV) | -4.60 | -11.84 | -7.39 |
| Standard Deviation(mV) | 0.46 | 0.59 | 0.49 |
| Distribution Peak | 2.79 | -11.2 | -18.3 |

FIG. 18b

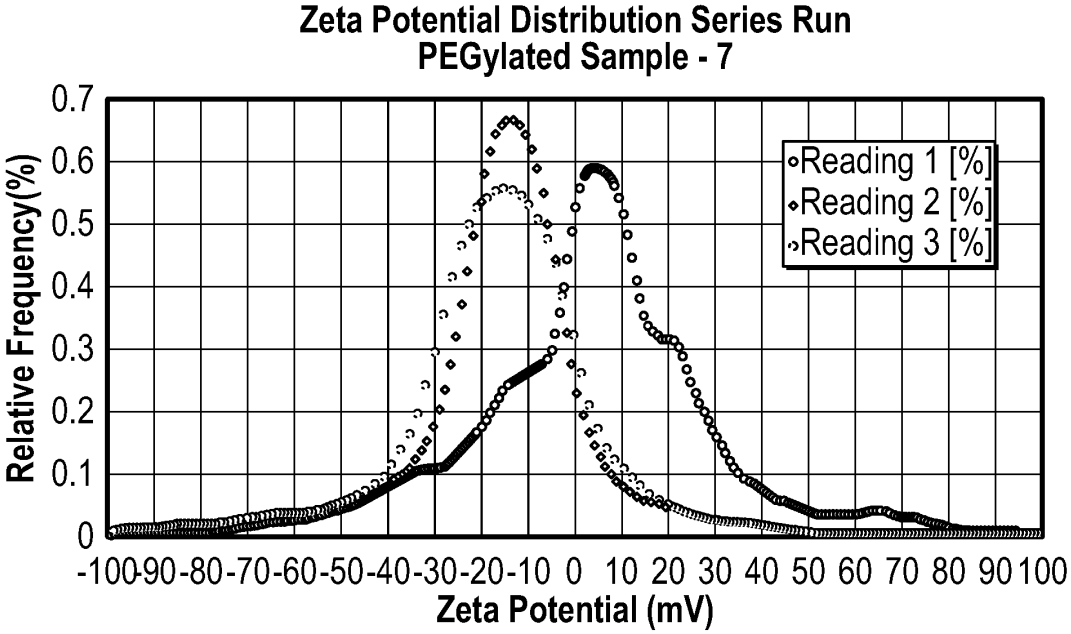

Zeta Potential Distribution Series Run
PEGylated Sample - 7
Relative Frequency(%)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100
Zeta Potential (mV)
Reading 1 [%]
Reading 2 [%]
Reading 3 [%]

FIG. 19

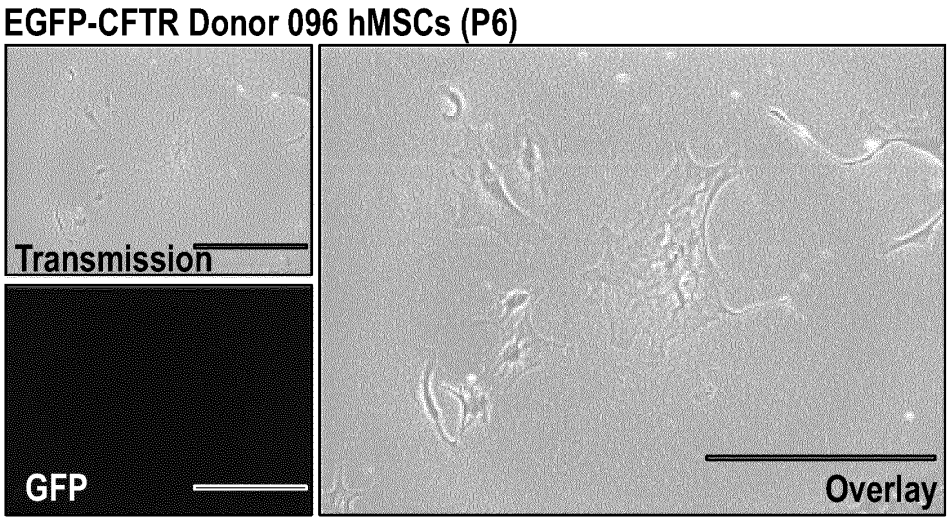

EGFP-CFTR Donor 096 hMSCs (P6)
Transmission
GFP
Overlay

FIG. 20

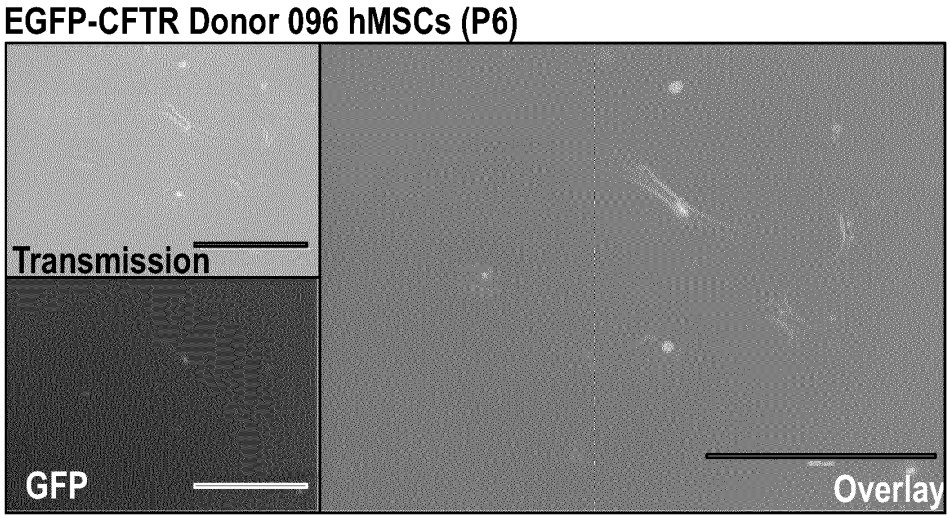

EGFP-CFTR Donor 096 hMSCs (P6)
Transmission
GFP
Overlay

FIG. 21

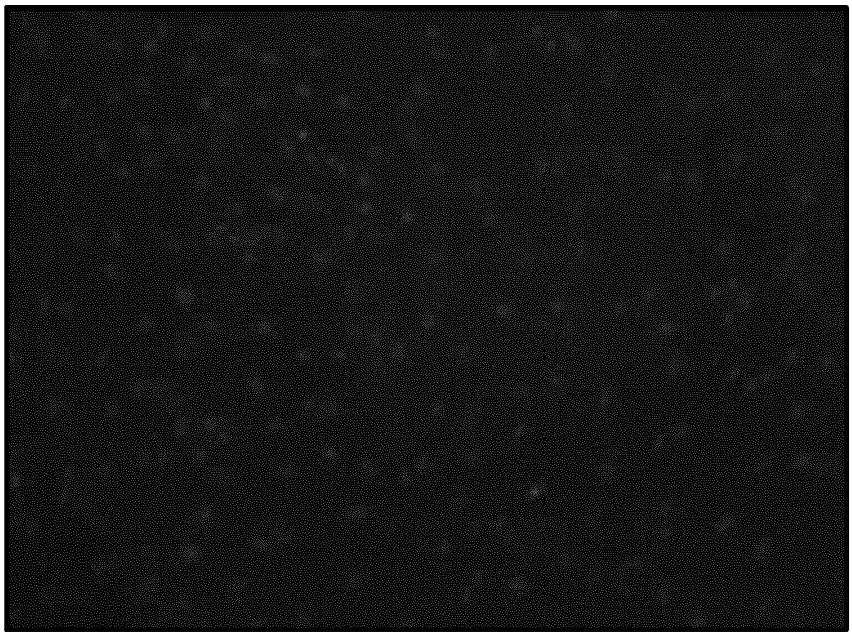


FIG. 22

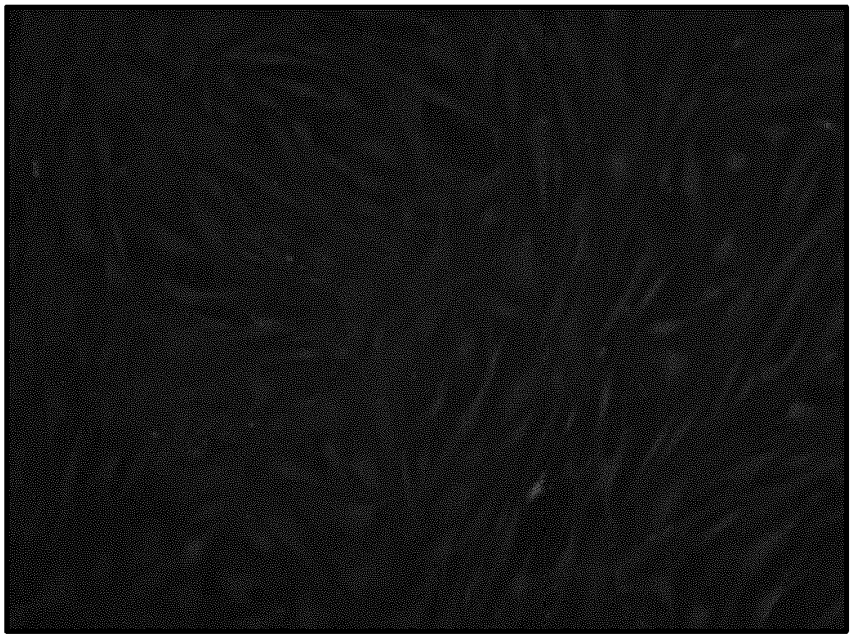


FIG. 23

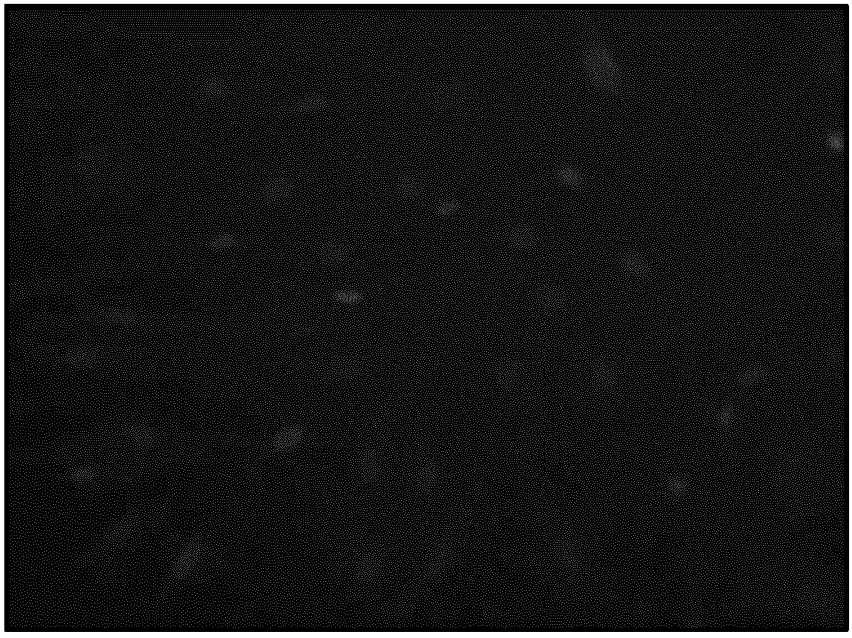


FIG. 24

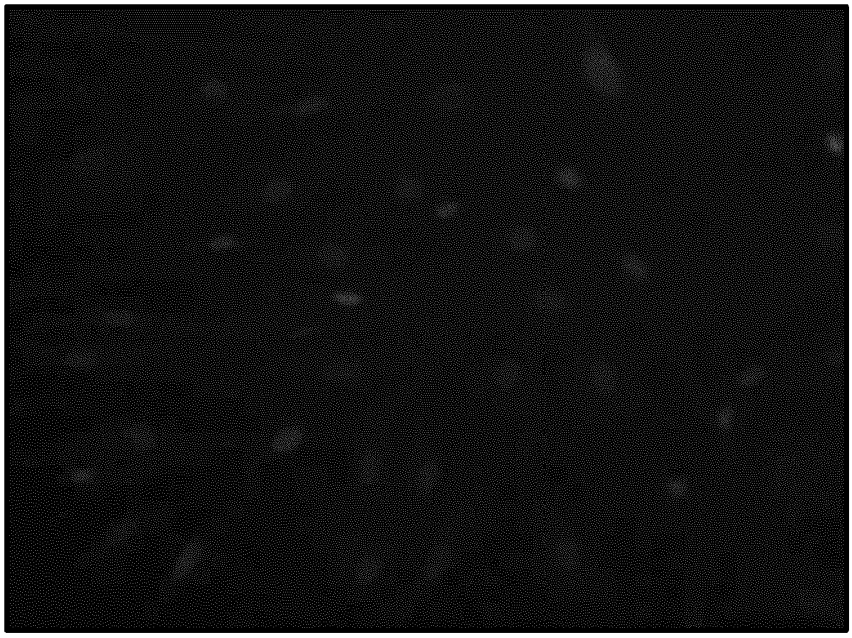


FIG. 25