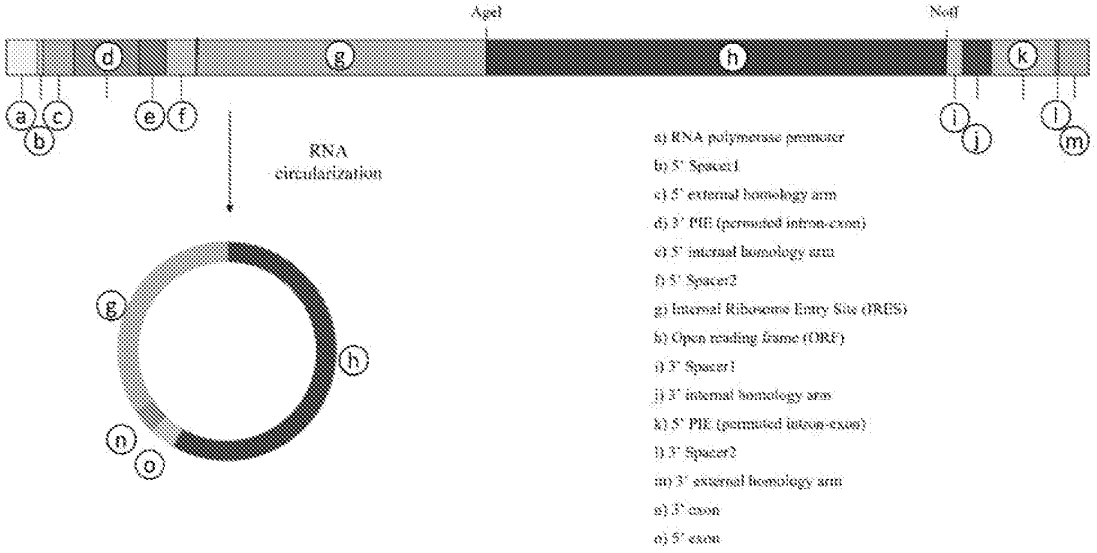


Figure 1

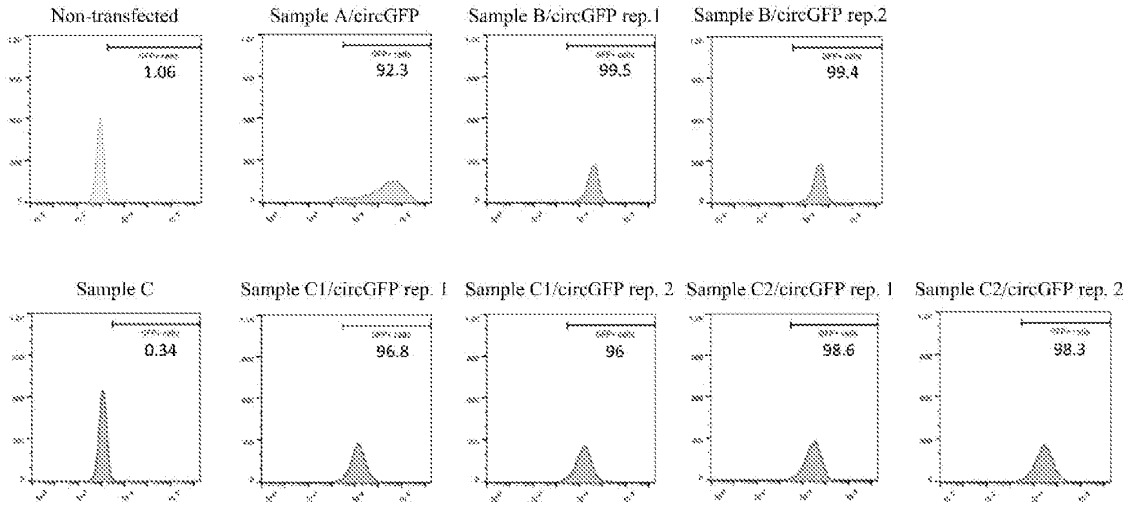


Figure 2

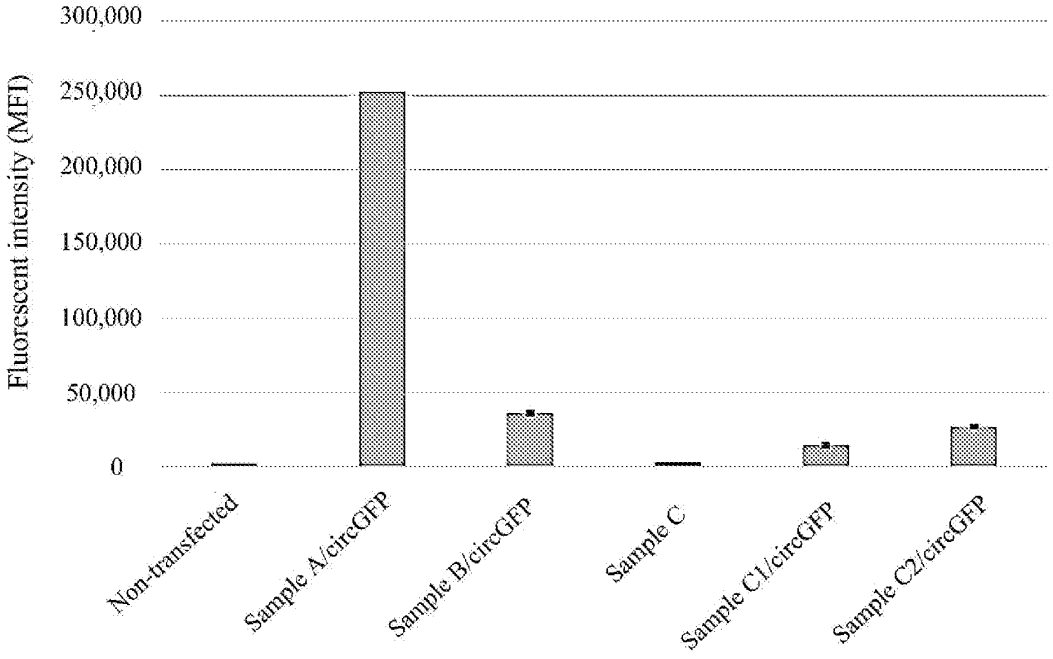

300,000
250,000
200,000
150,000
100,000
50,000
0
Fluorescent intensity (MFI)
Non-transfected
Sample A/circGFP
Sample B/circGFP
Sample C
Sample C1/circGFP
Sample C2/circGFP

Figure 3

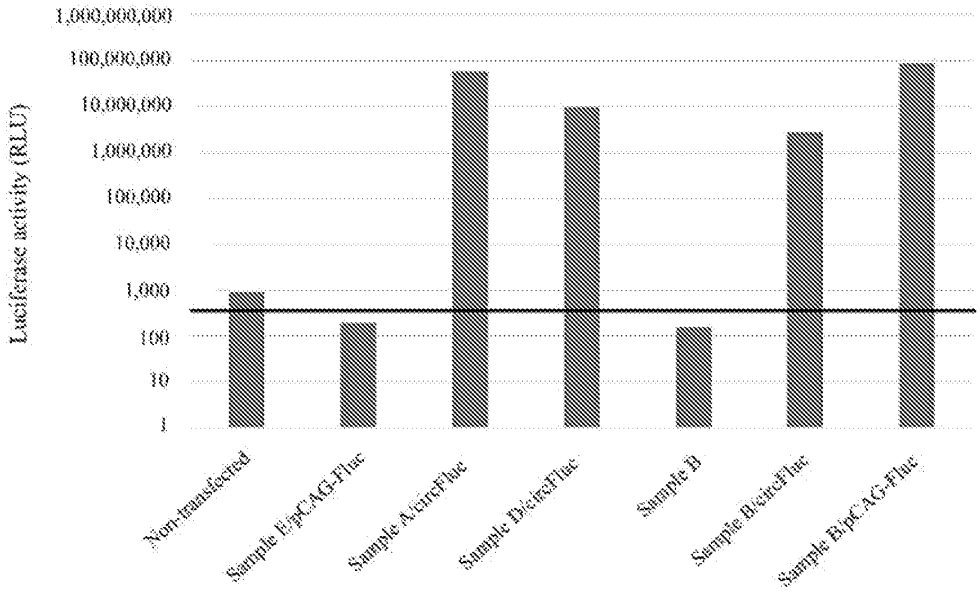


Figure 4

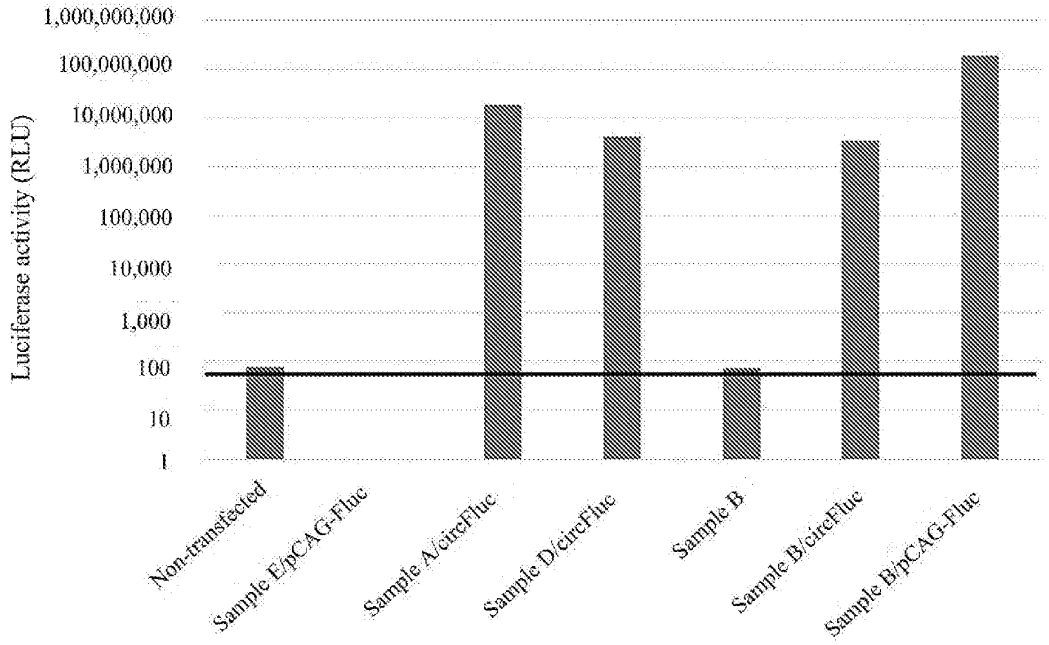


Figure 5

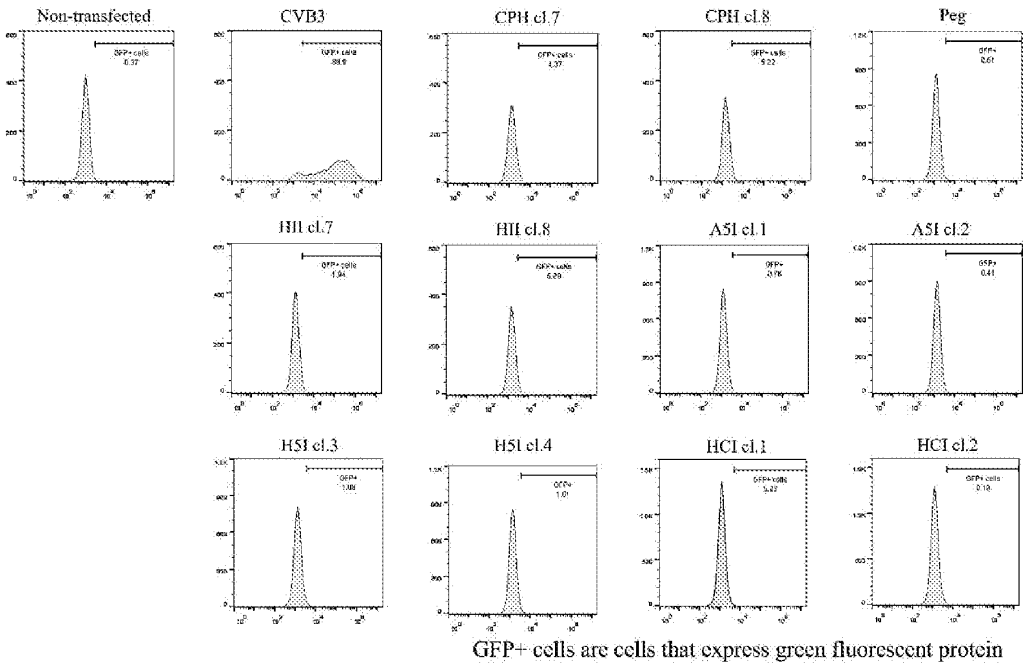


Figure 6

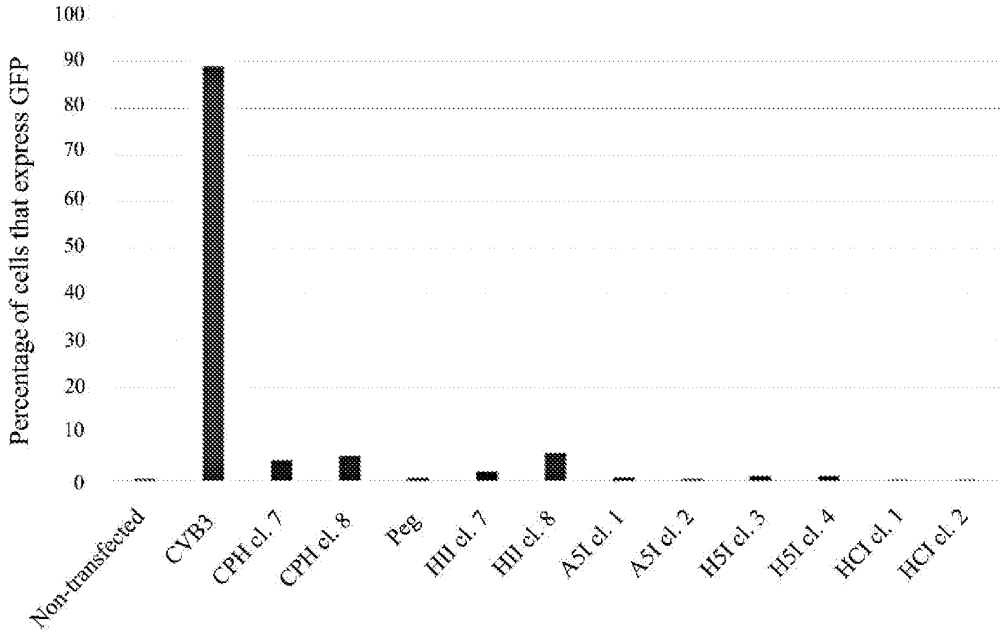
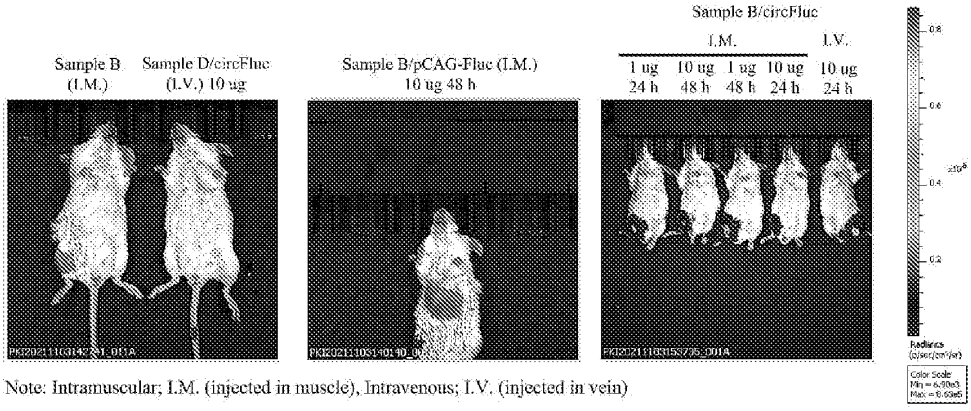
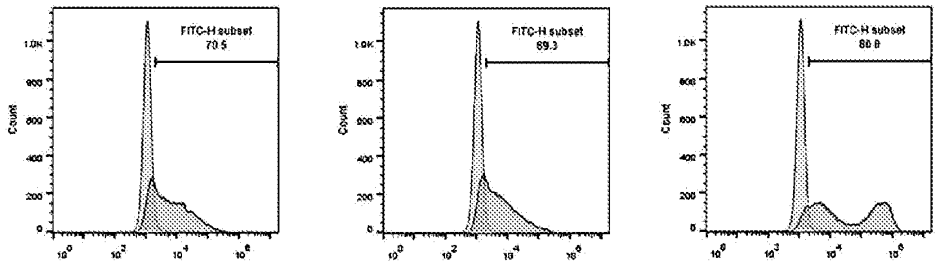


Figure 7



Note: Intramuscular; I.M. (injected in muscle), Intravenous; I.V. (injected in vein)

Figure 8



Pan-Hexapro-SPIKE circmRNA | **Pan-VFLIP-SPIKE circmRNA** | **pCMV3-S DNA (positive control)**

Figure 9

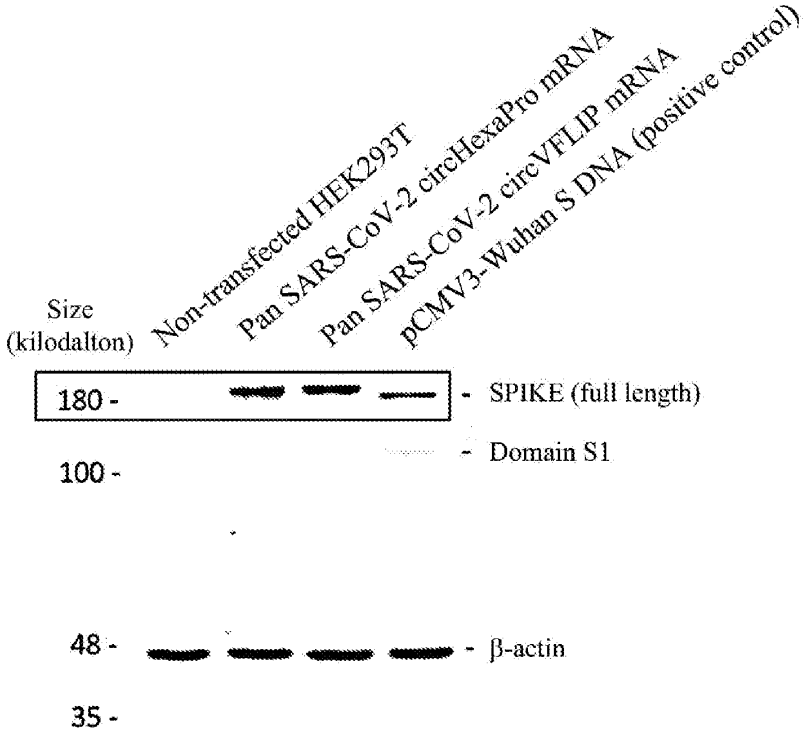

Size
(kilodalton)
Non-transfected HEK293T
Pan SARS-CoV-2 circHexaPro mRNA
Pan SARS-CoV-2 circVFLIP mRNA
pCMV3-Wuhan S DNA (positive control)
180 -
100 -
48 -
35 -
SPIKE (full length)
Domain S1
β-actin

Figure 10

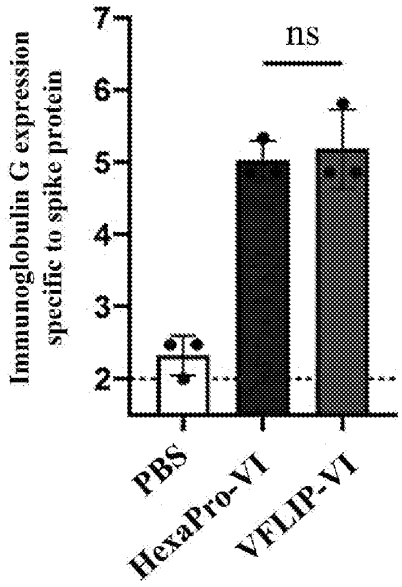


Figure 11

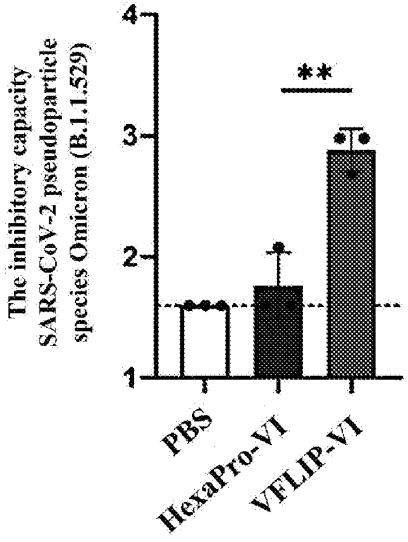


Figure 12

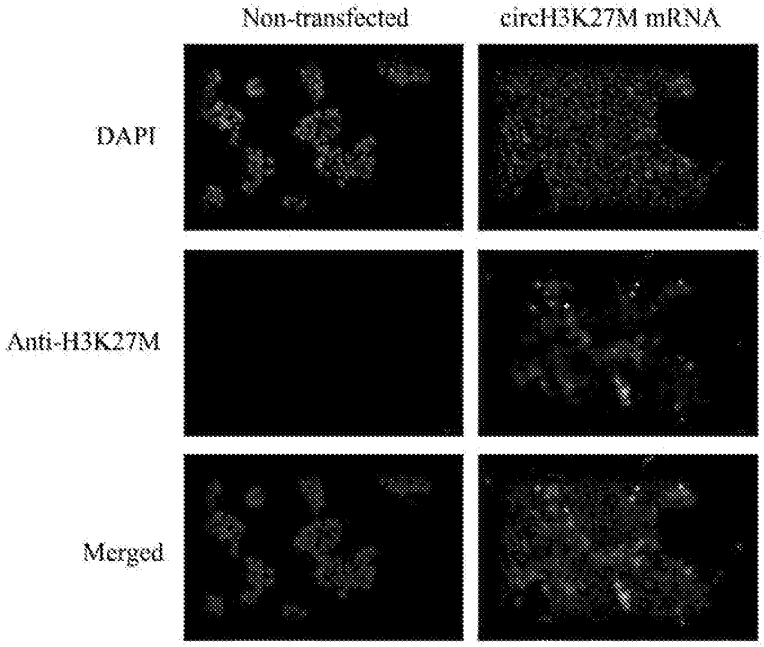


Figure 13

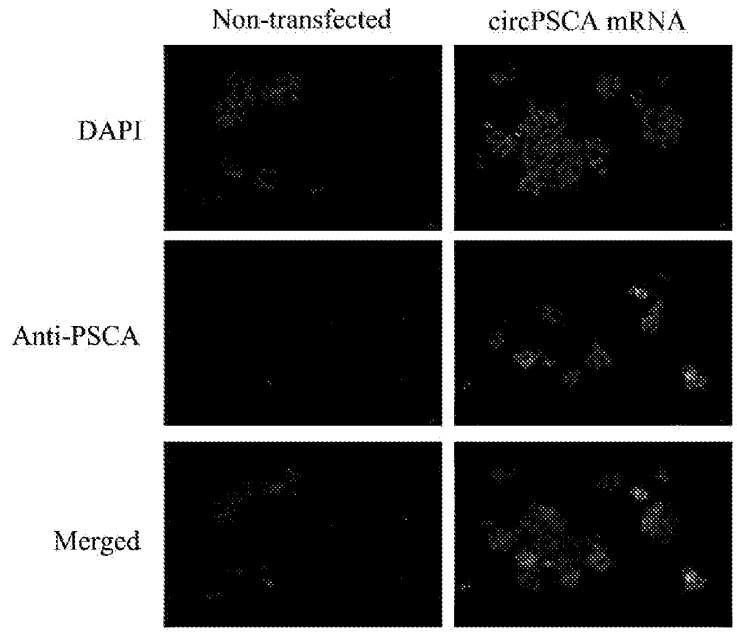


Figure 14

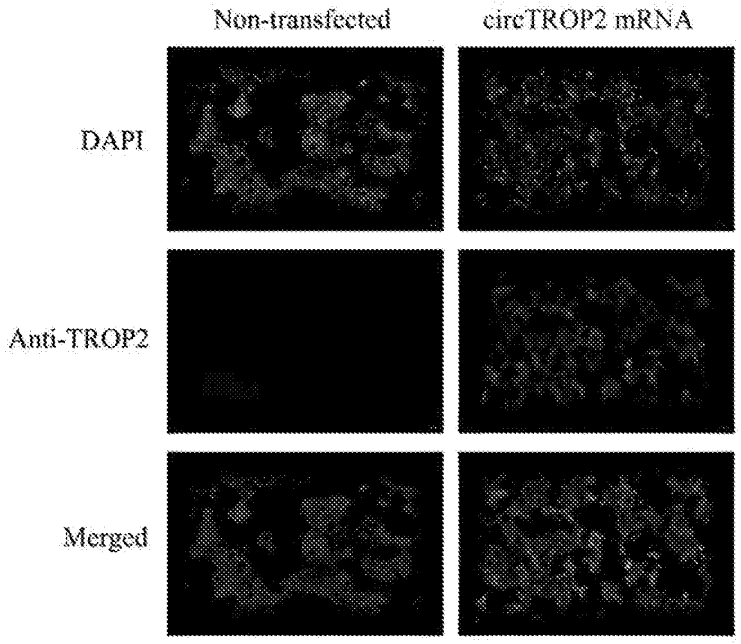


Figure 15

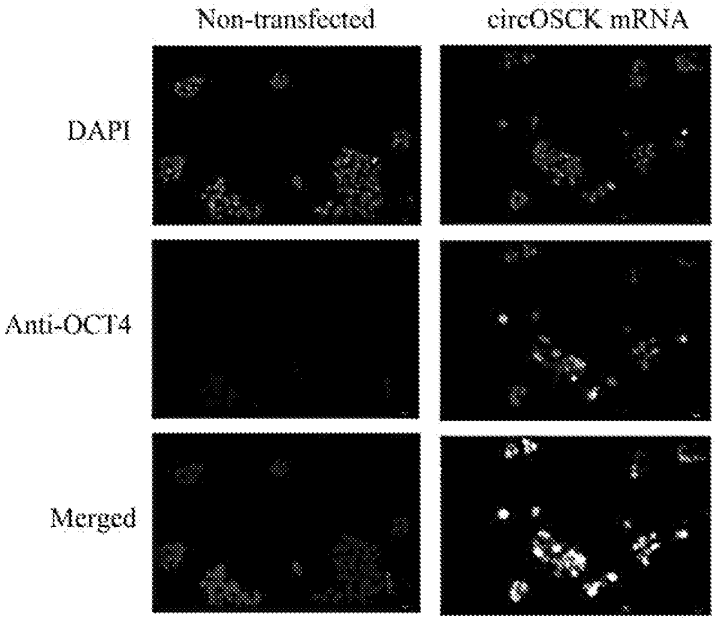


Figure 16

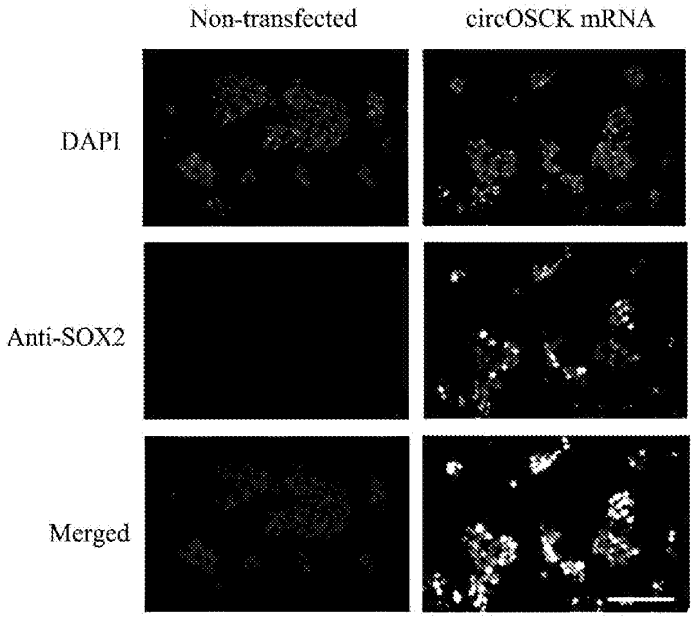


Figure 17

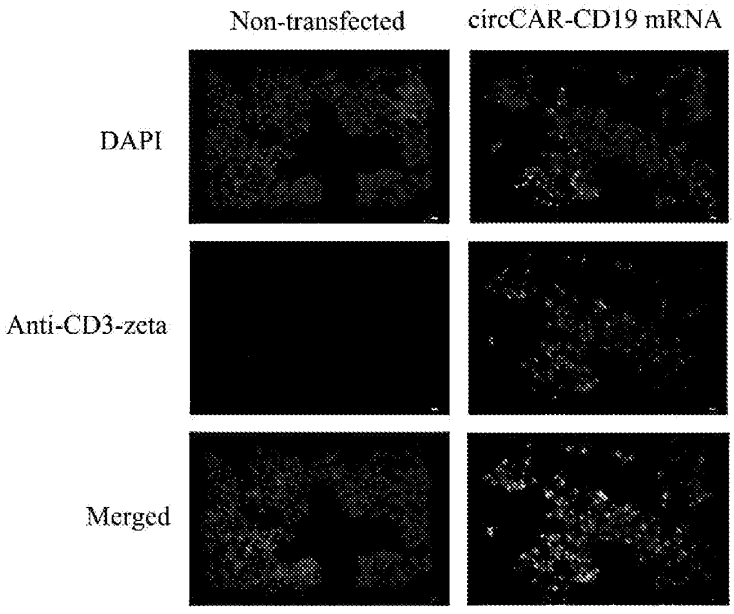


Figure 18

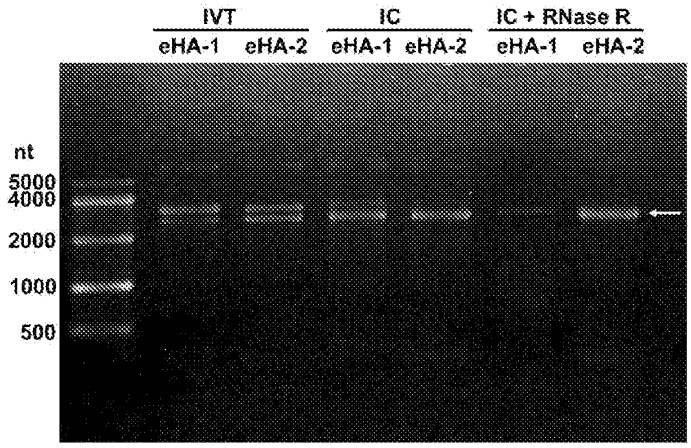

IVT
IC
IC + RNase R
eHA-1
eHA-2
eHA-1
eHA-2
eHA-1
eHA-2
nt
5000
4000
2000
1000
500

Figure 19

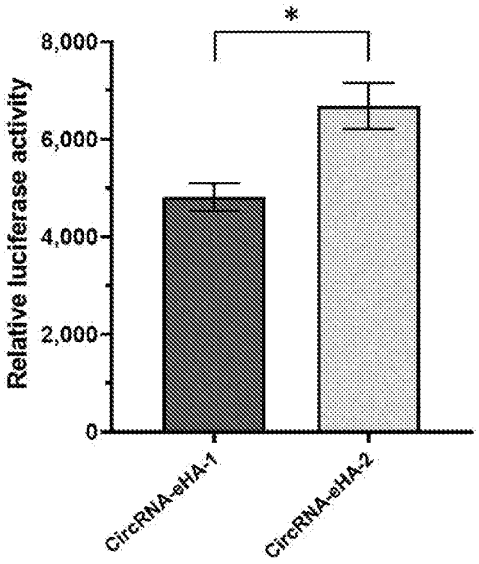

*
8,000
6,000
4,000
2,000
0
Relative luciferase activity
CircRNA-eHA-1
CircRNA-eHA-2

Figure 20

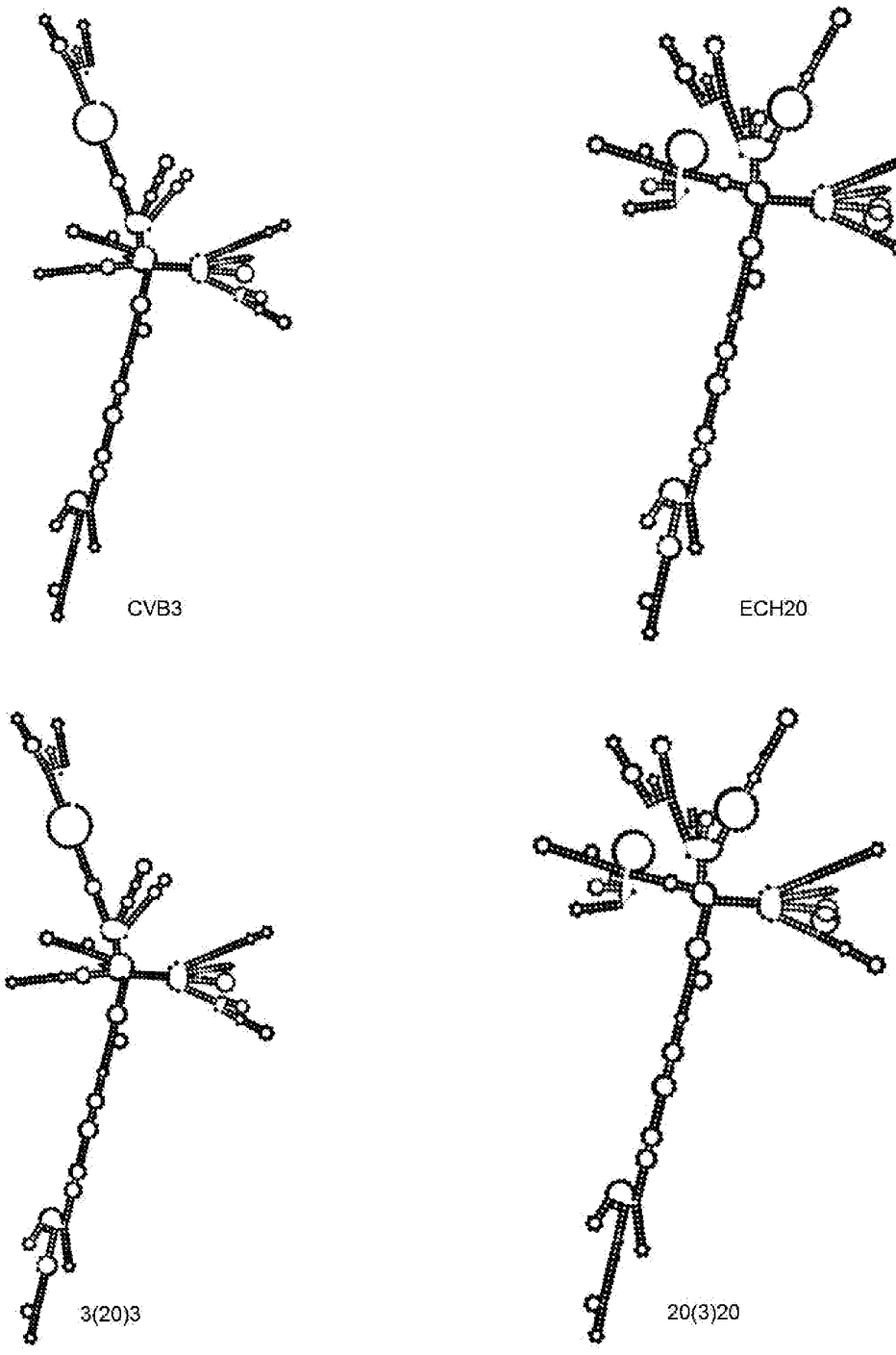


Figure 21

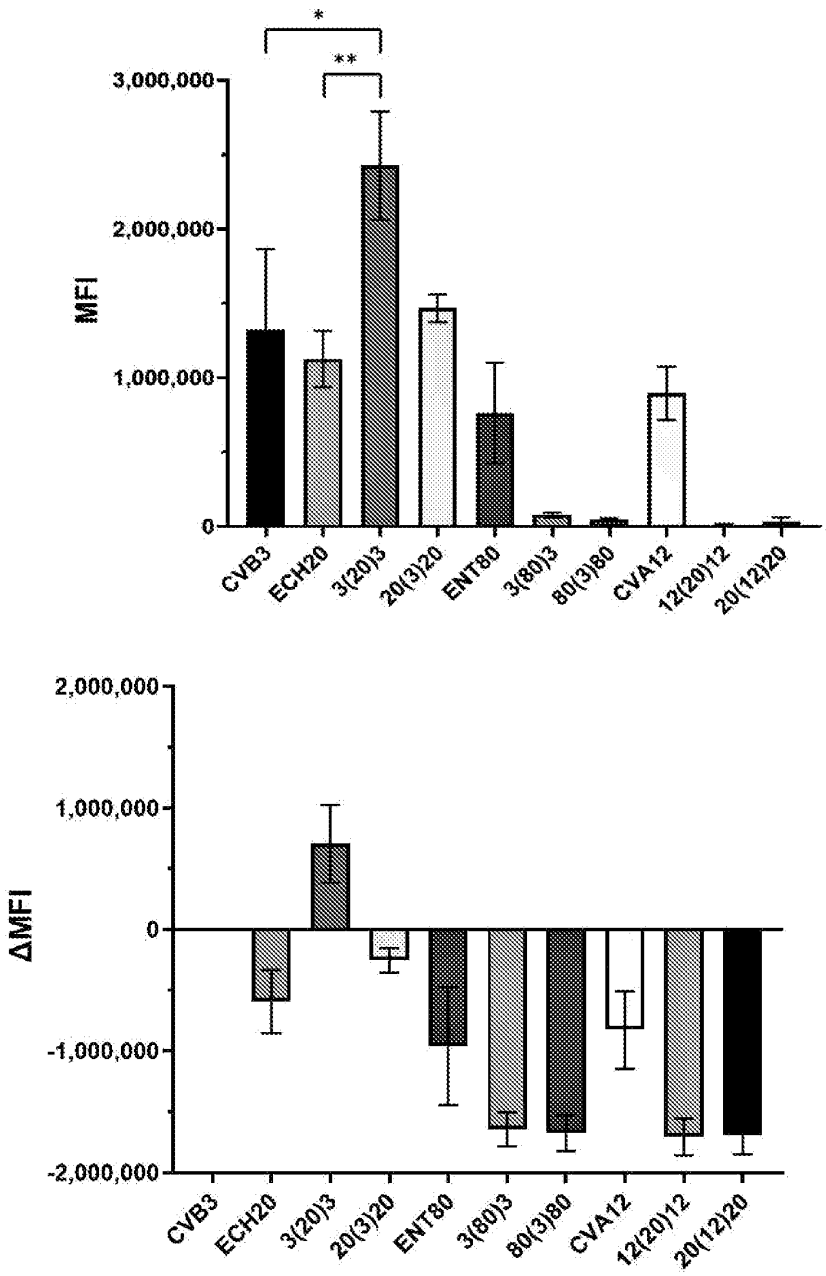

*
**
3,000,000
2,000,000
1,000,000
0
MFI
CVB3
ECH20
3(20)3
20(3)20
ENT80
3(80)3
80(3)80
CVA12
12(20)12
20(12)20
2,000,000
1,000,000
0
-1,000,000
-2,000,000
ΔMFI
CVB3
ECH20
3(20)3
20(3)20
ENT80
3(80)3
80(3)80
CVA12
12(20)12
20(12)20

Figure 22

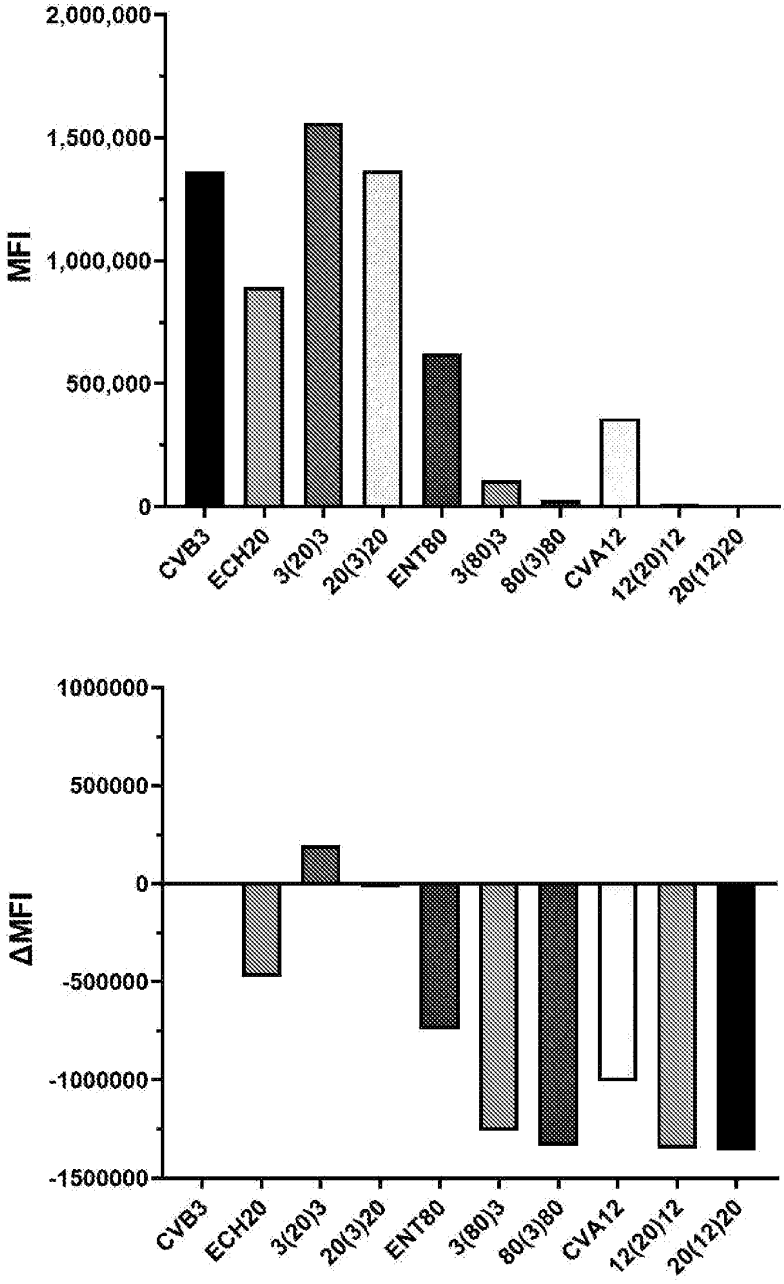

2,000,000
1,500,000
1,000,000
500,000
0
MFI
CVB3
ECH20
3(20)3
20(3)20
ENT80
3(80)3
80(3)80
CVA12
12(20)12
20(12)20
1000000
500000
0
-500000
-1000000
-1500000
ΔMFI
CVB3
ECH20
3(20)3
20(3)20
ENT80
3(80)3
80(3)80
CVA12
12(20)12
20(12)20

Figure 23

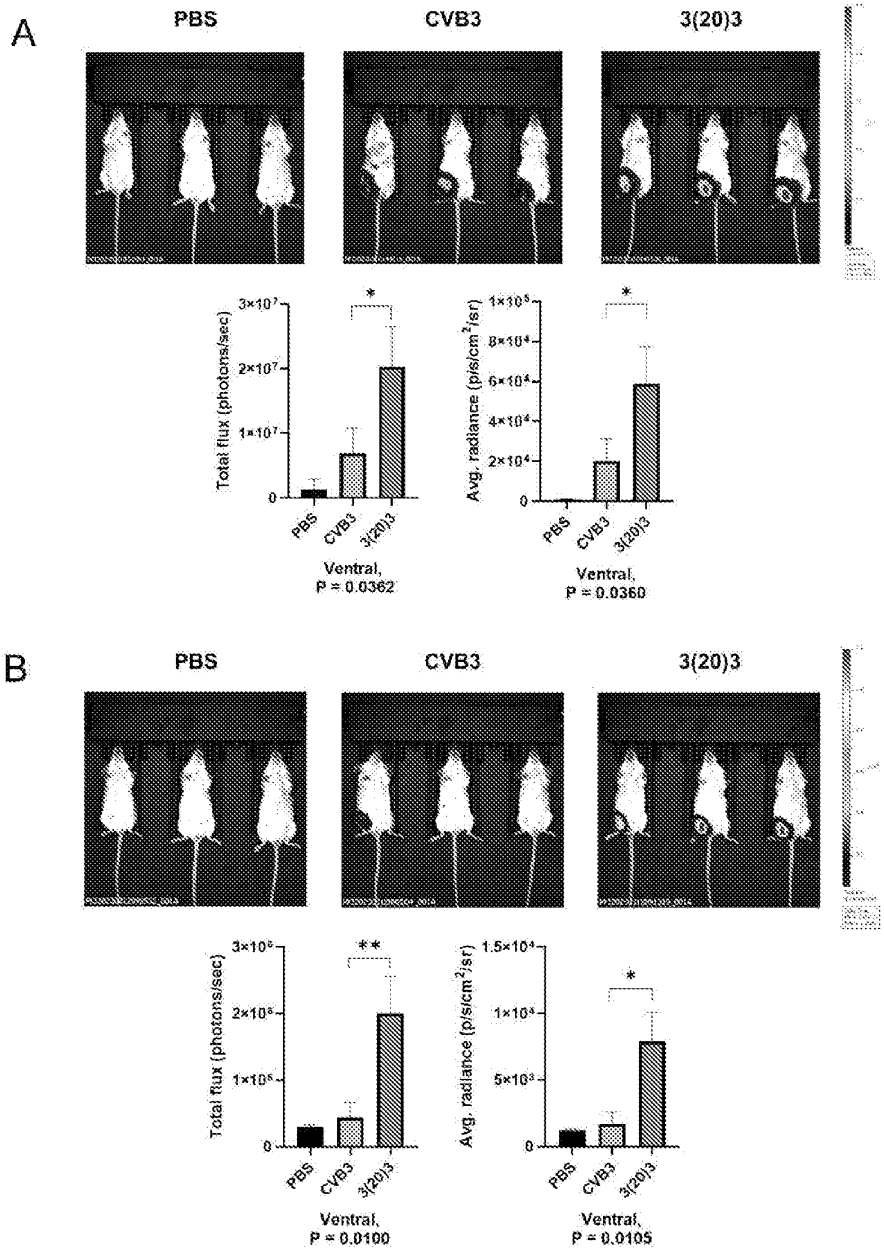

A
PBS
CVB3
3(20)3
Total flux (photons/sec)
Avg. radiance (p/s/cm²/sr)
Ventral,
P = 0.0362
Ventral,
P = 0.0360
B
PBS
CVB3
3(20)3
Total flux (photons/sec)
Avg. radiance (p/s/cm²/sr)
Ventral,
P = 0.0100
Ventral,
P = 0.0105

Figure 24