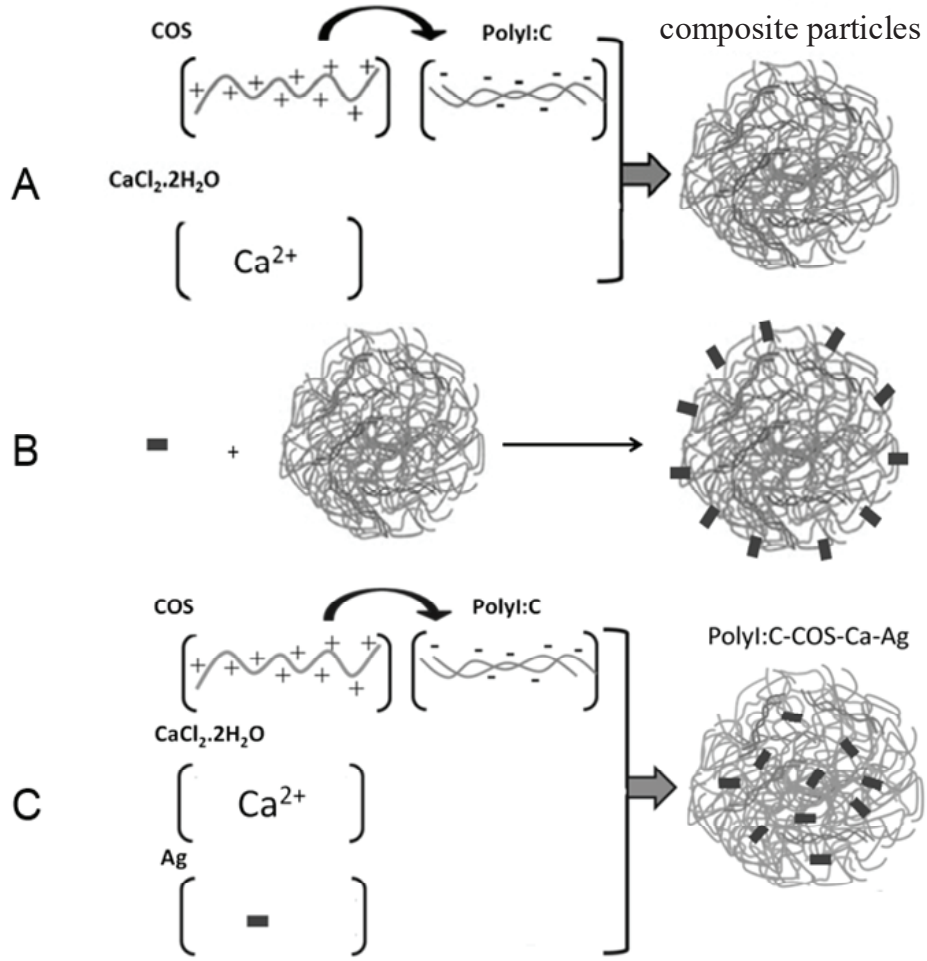

COS
PolyI:C
composite particles
A
$CaCl_2.2H_2O$
Ca^{2+}
B
COS
PolyI:C
PolyI:C-COS-Ca-Ag
$CaCl_2.2H_2O$
C
Ca^{2+}
Ag

FIG. 1

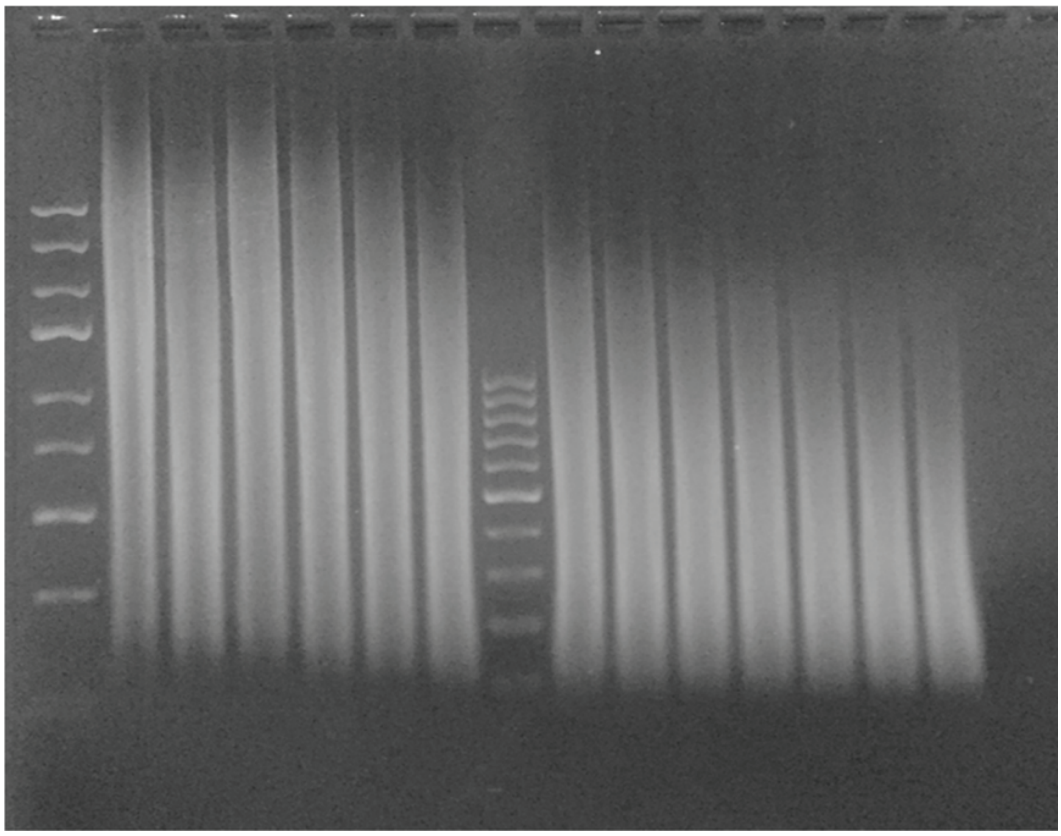


FIG. 2

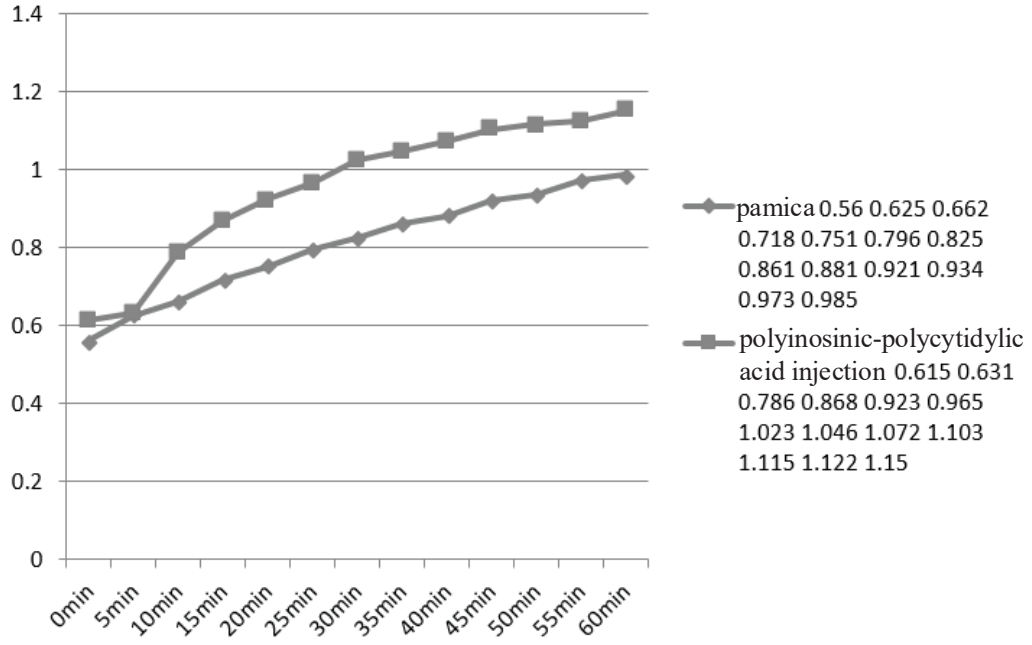

1.4
1.2
1
0.8
0.6
0.4
0.2
0
0min
5min
10min
15min
20min
25min
30min
35min
40min
45min
50min
55min
60min
pamica 0.56 0.625 0.662 0.718 0.751 0.796 0.825 0.861 0.881 0.921 0.934 0.973 0.985
polyinosinic-polycytidylic acid injection 0.615 0.631 0.786 0.868 0.923 0.965 1.023 1.046 1.072 1.103 1.115 1.122 1.15

FIG. 3

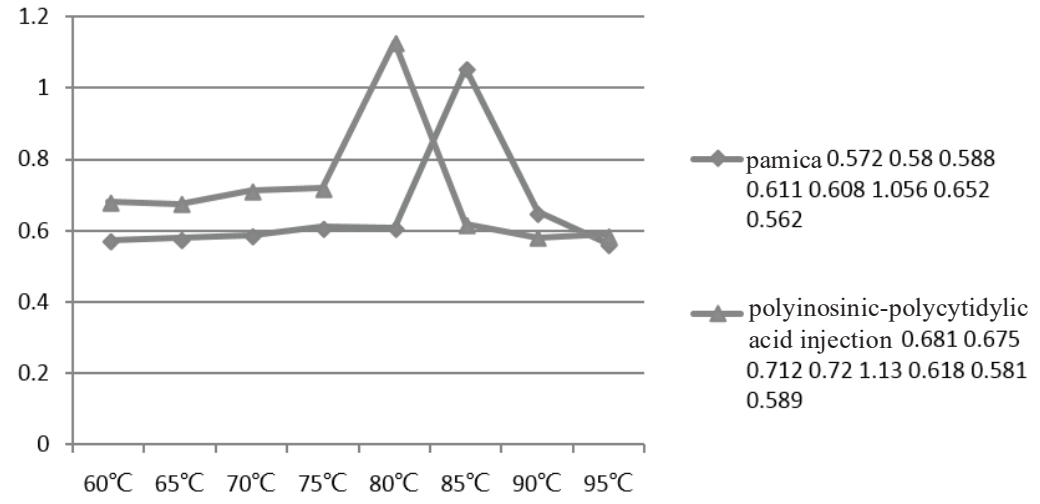

1.2
1
0.8
0.6
0.4
0.2
0
60℃ 65℃ 70℃ 75℃ 80℃ 85℃ 90℃ 95℃
pamica 0.572 0.58 0.588 0.611 0.608 1.056 0.652 0.562
polyinosinic-polycytidylic acid injection 0.681 0.675 0.712 0.72 1.13 0.618 0.581 0.589

FIG. 4

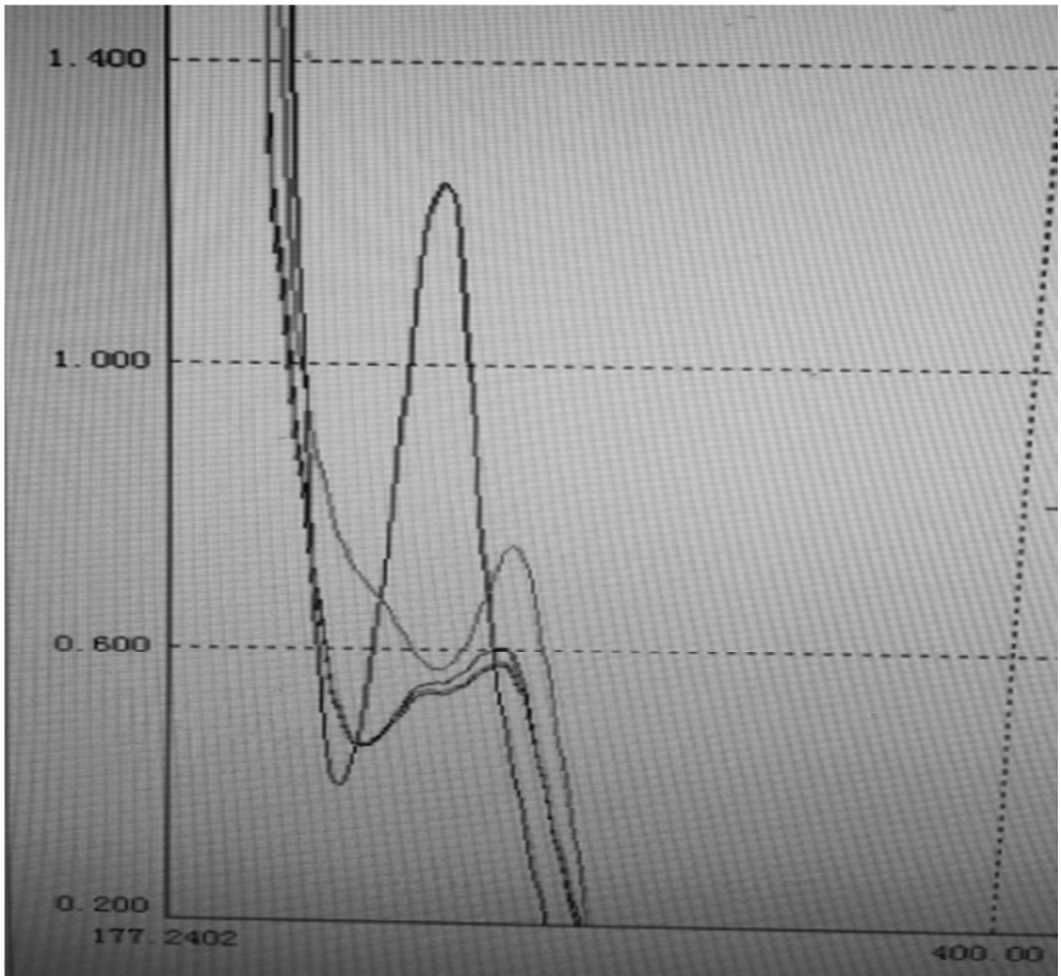

1.400
1.000
0.600
0.200
177.2402
400.00

FIG. 5

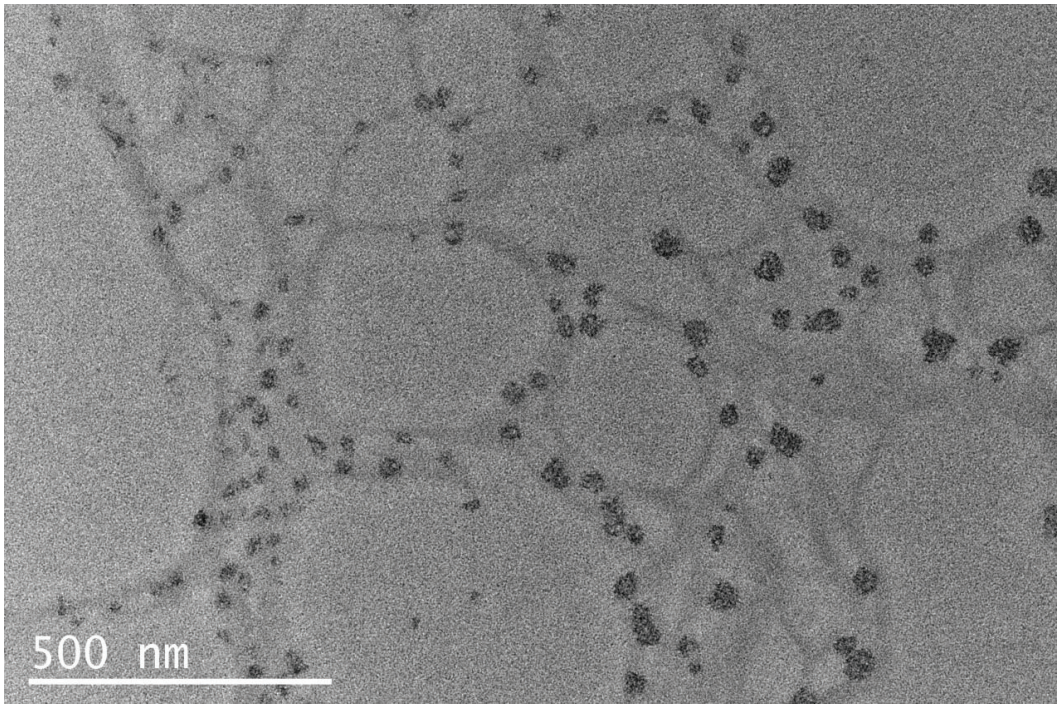


FIG. 6

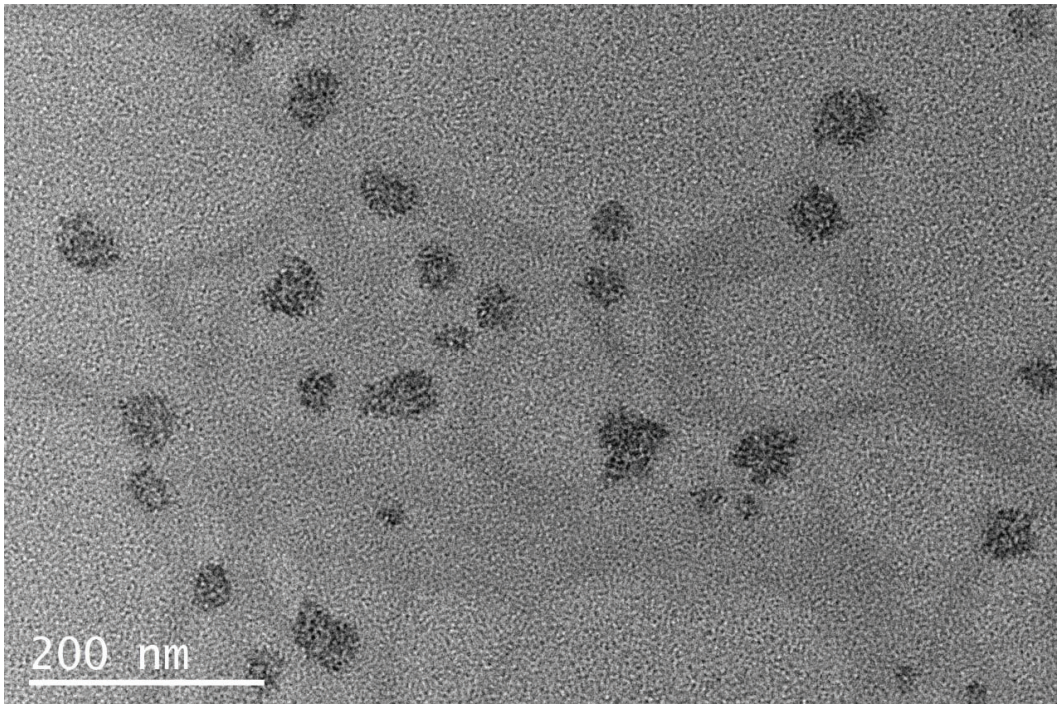


FIG. 7

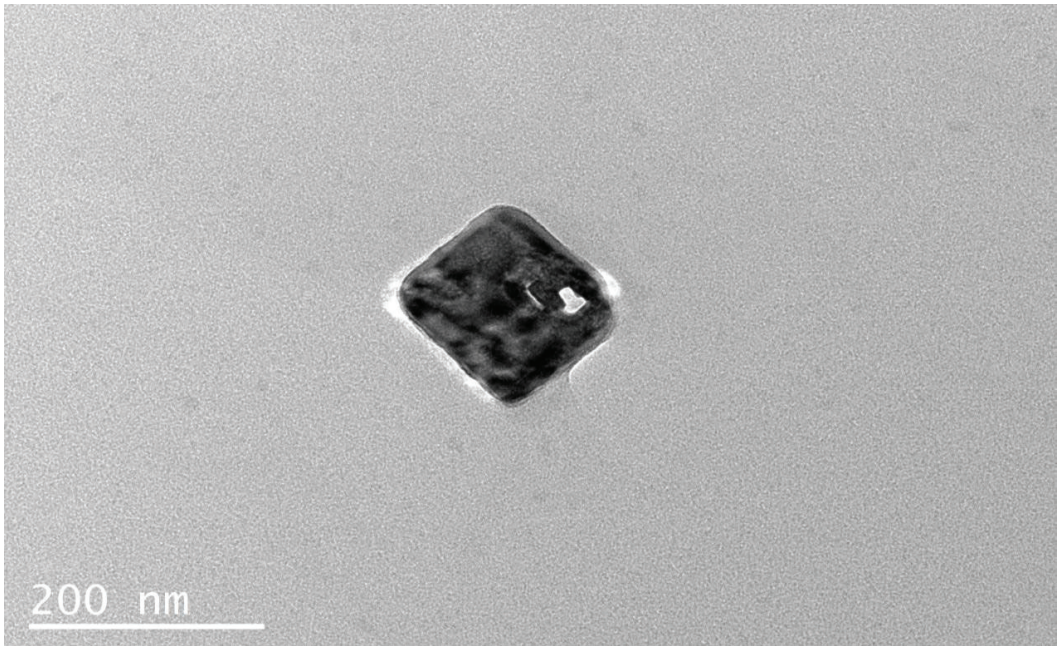


FIG. 8

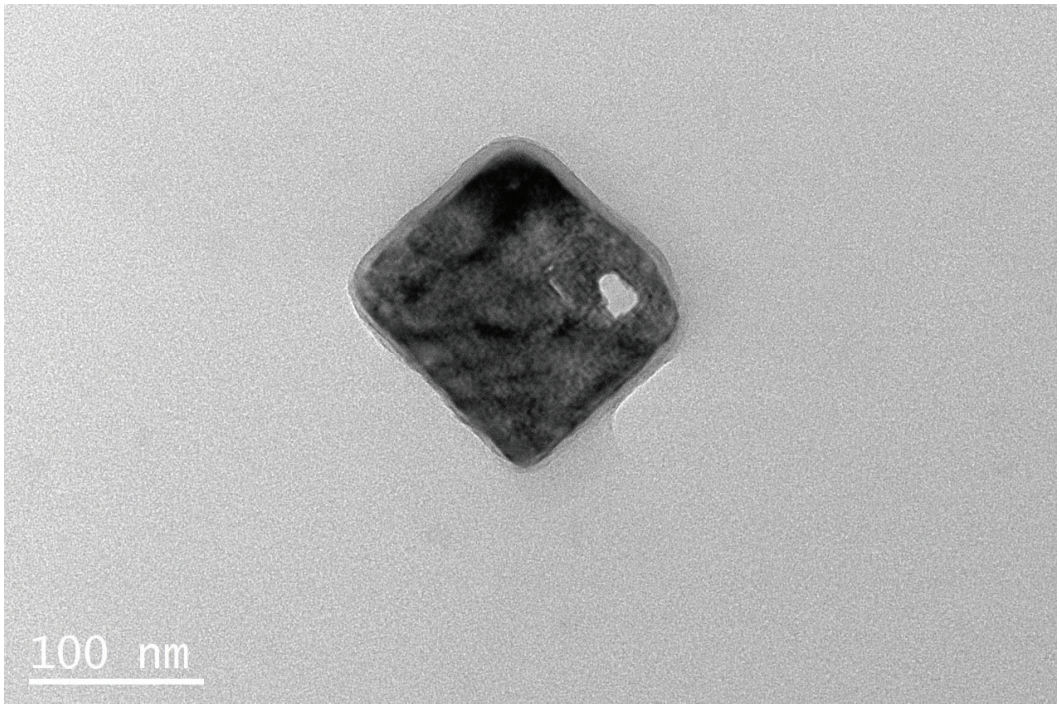


FIG. 9

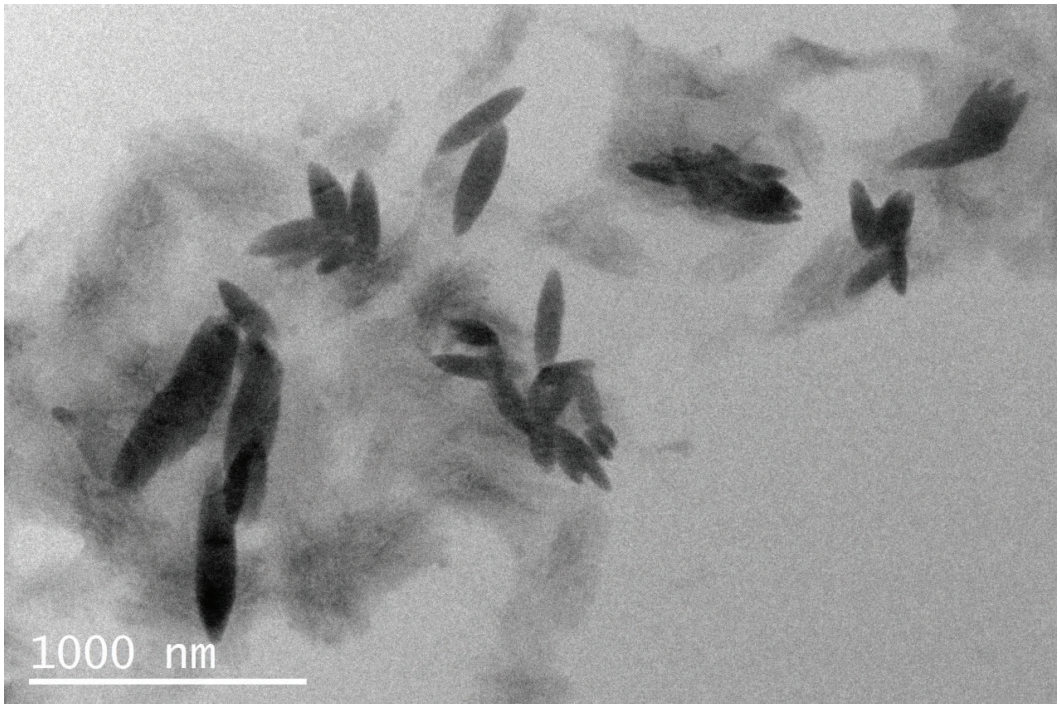


FIG. 10

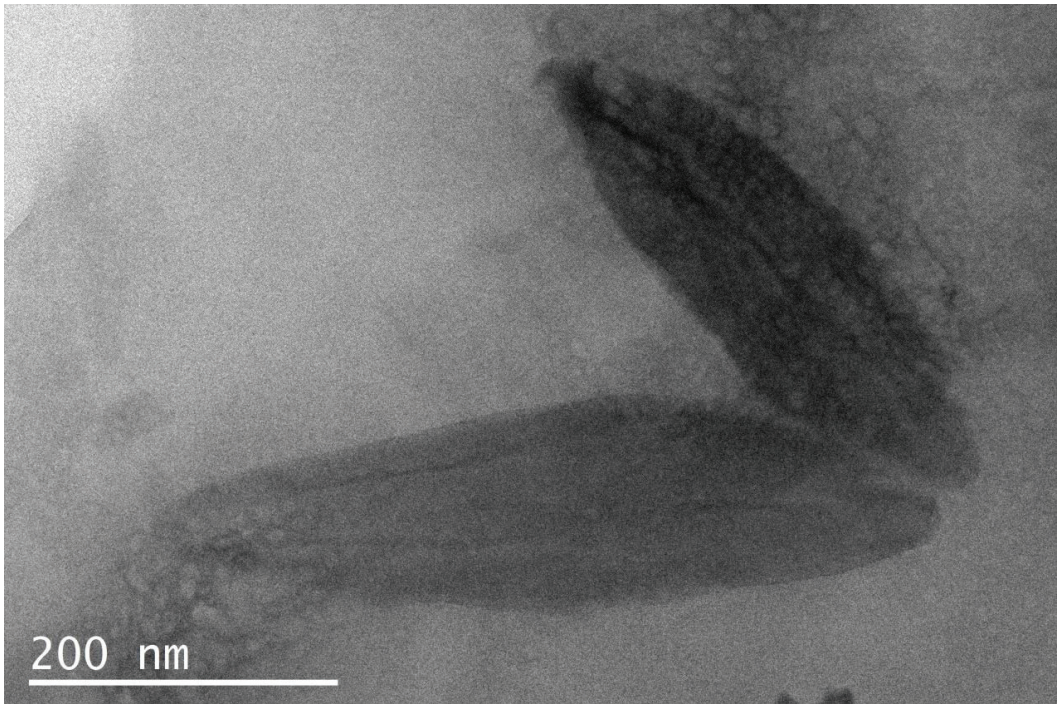


FIG. 11

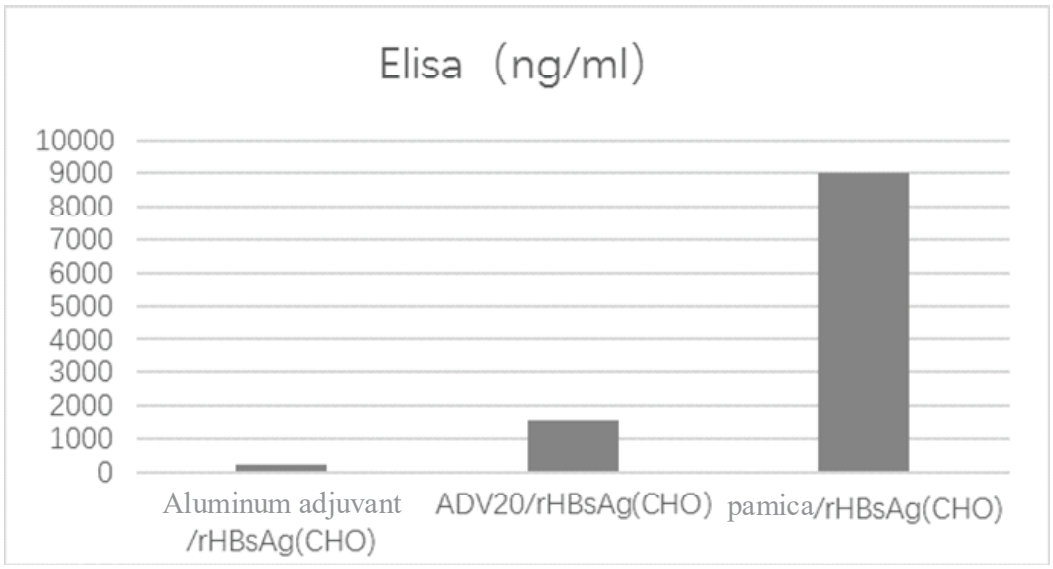

Elisa (ng/ml)
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Aluminum adjuvant /rHBsAg(CHO)
ADV20/rHBsAg(CHO)
pamica/rHBsAg(CHO)

FIG. 12

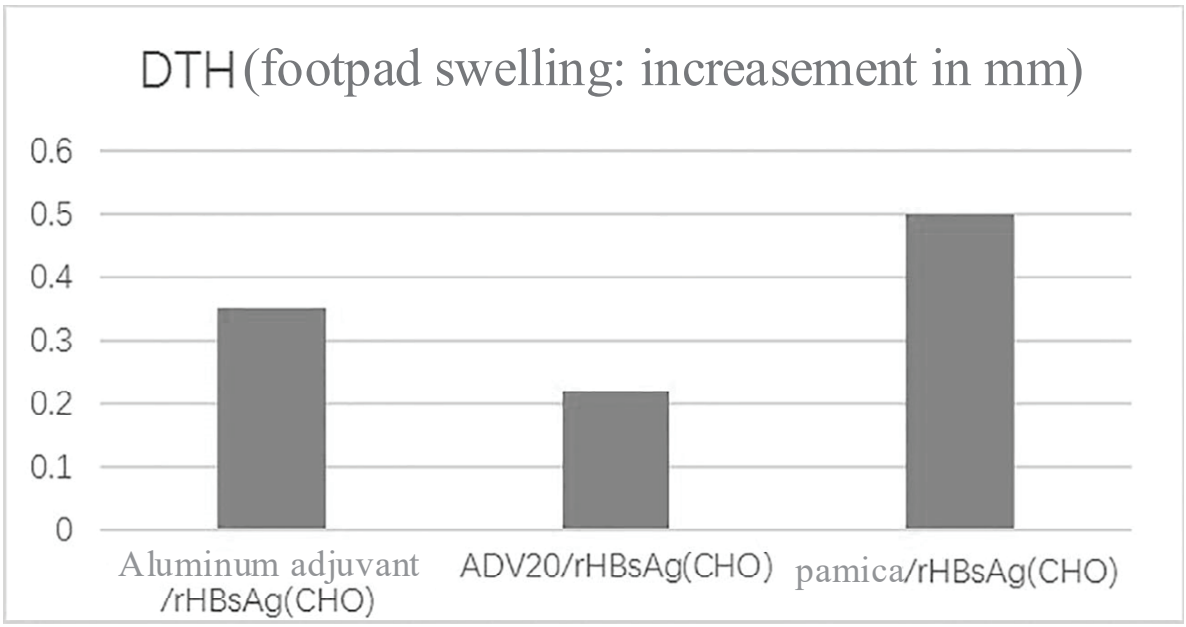

DTH (footpad swelling: increasement in mm)
0.6
0.5
0.4
0.3
0.2
0.1
0
Aluminum adjuvant /rHBsAg(CHO)
ADV20/rHBsAg(CHO)
pamica/rHBsAg(CHO)

FIG. 13

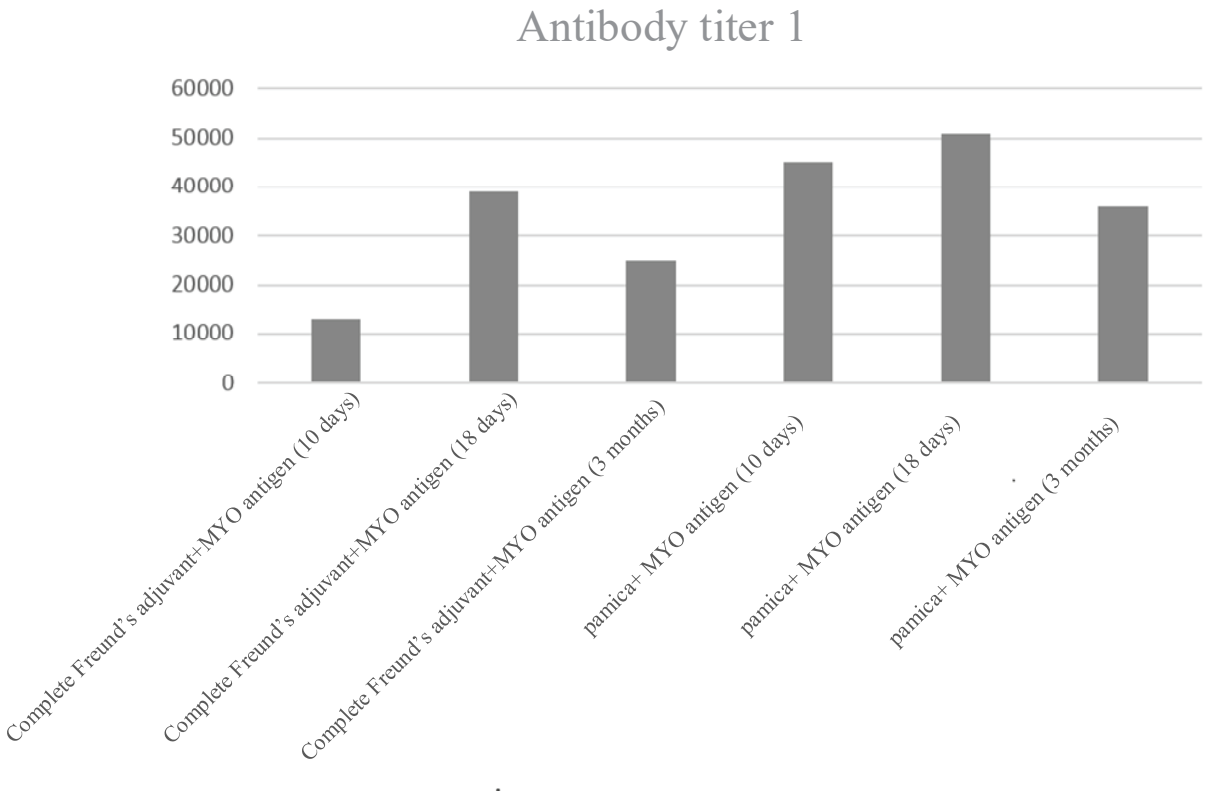

Antibody titer 1
60000
50000
40000
30000
20000
10000
0
Complete Freund's adjuvant+MYO antigen (10 days)
Complete Freund's adjuvant+MYO antigen (18 days)
Complete Freund's adjuvant+MYO antigen (3 months)
pamica+ MYO antigen (10 days)
pamica+ MYO antigen (18 days)
pamica+ MYO antigen (3 months)

FIG. 14

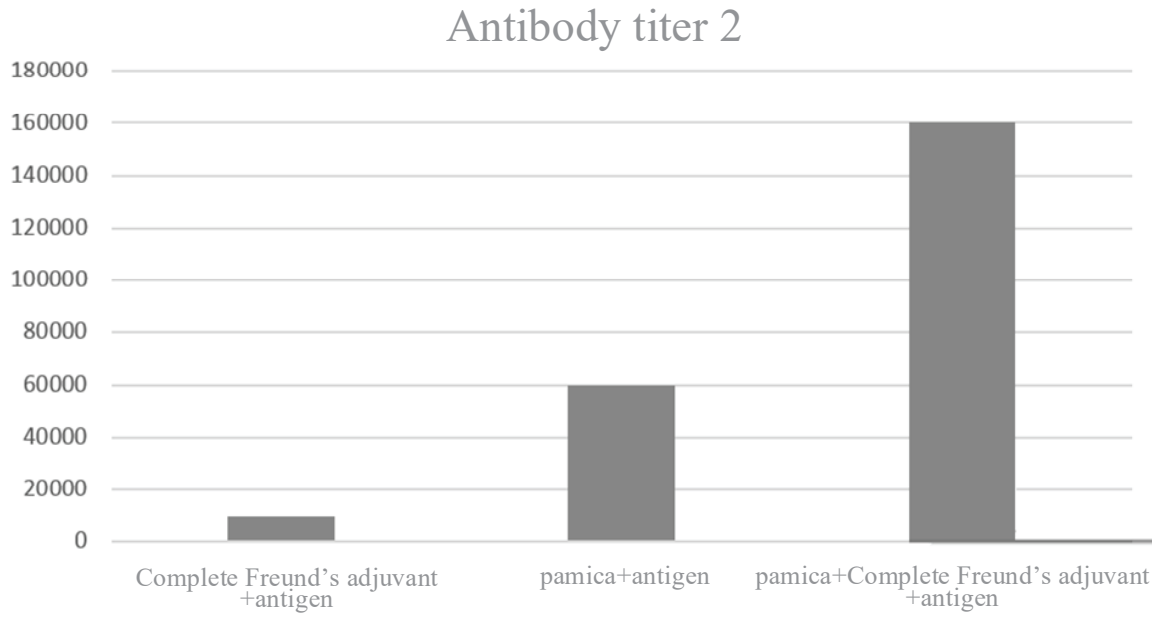

Antibody titer 2
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
Complete Freund's adjuvant +antigen
pamica+antigen
pamica+Complete Freund's adjuvant +antigen

FIG. 15

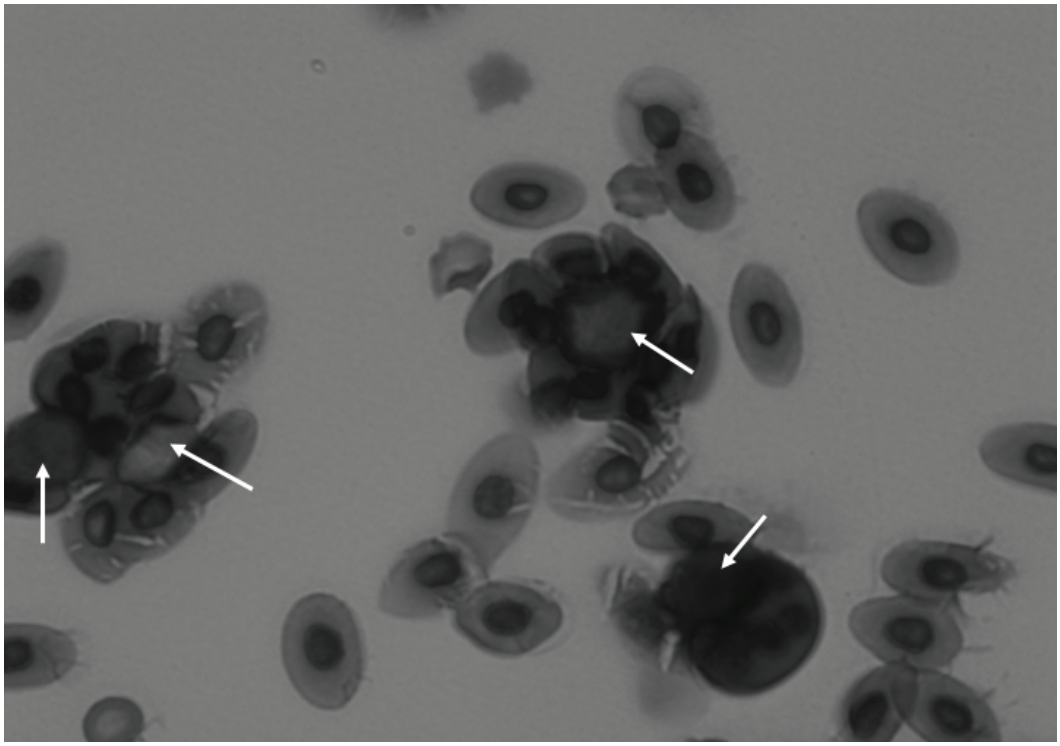


FIG. 16

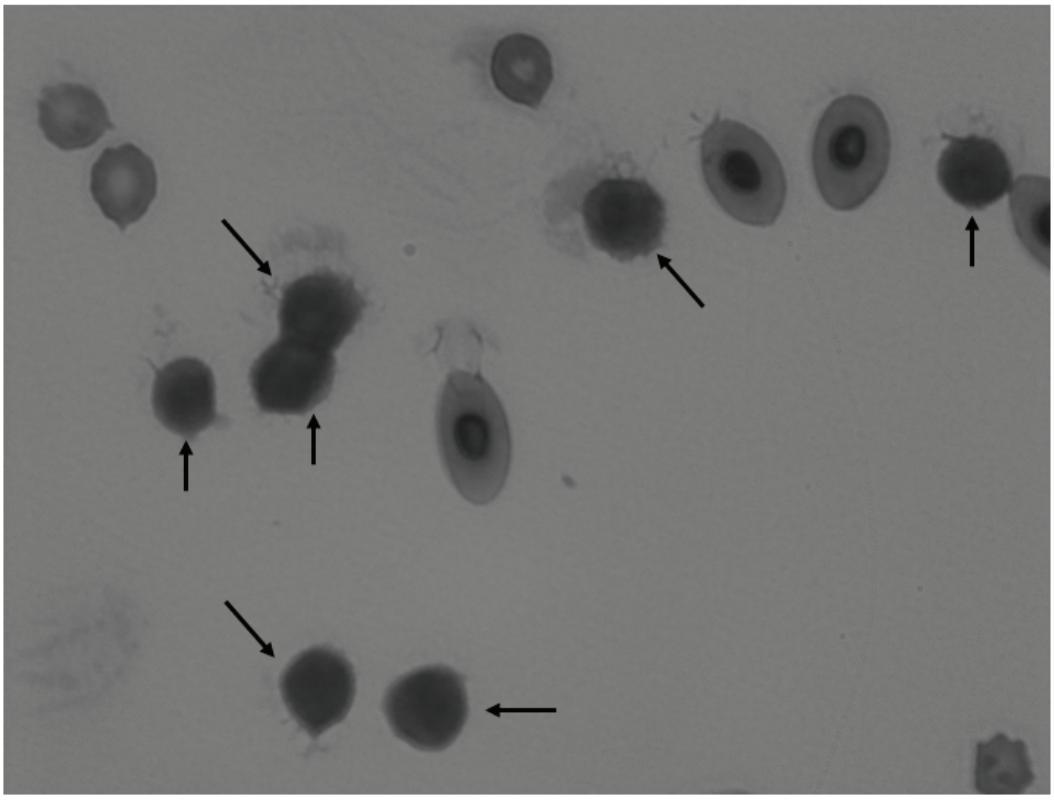


FIG. 17

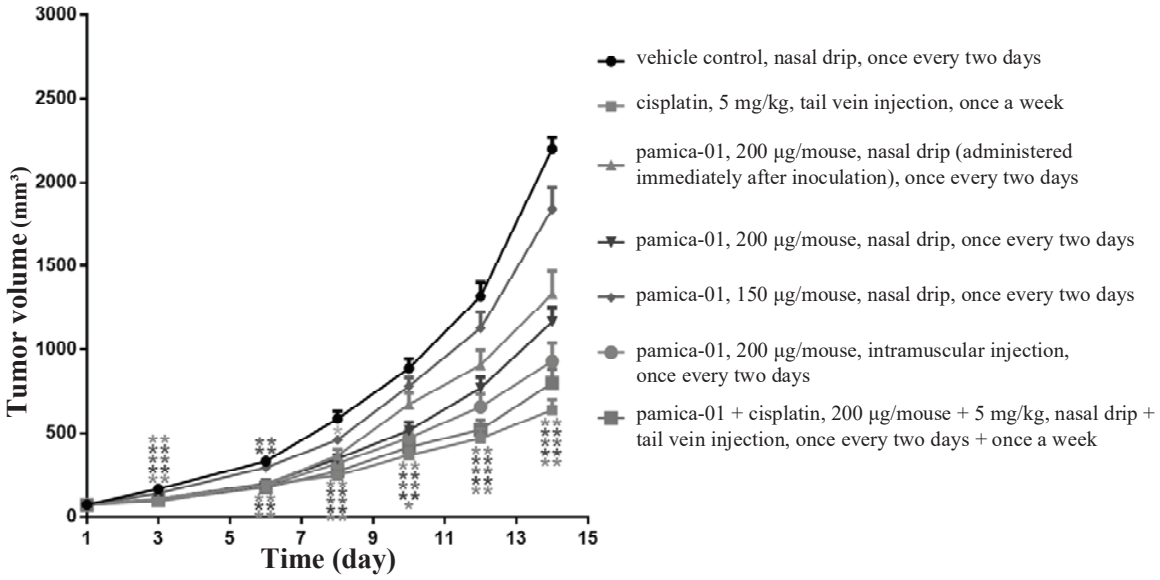

Tumor volume (mm³)
3000
2500
2000
1500
1000
500
0
1
3
5
7
9
11
13
15
Time (day)
vehicle control, nasal drip, once every two days
cisplatin, 5 mg/kg, tail vein injection, once a week
pamica-01, 200 μg/mouse, nasal drip (administered immediately after inoculation), once every two days
pamica-01, 200 μg/mouse, nasal drip, once every two days
pamica-01, 150 μg/mouse, nasal drip, once every two days
pamica-01, 200 μg/mouse, intramuscular injection, once every two days
pamica-01 + cisplatin, 200 μg/mouse + 5 mg/kg, nasal drip + tail vein injection, once every two days + once a week

FIG. 18

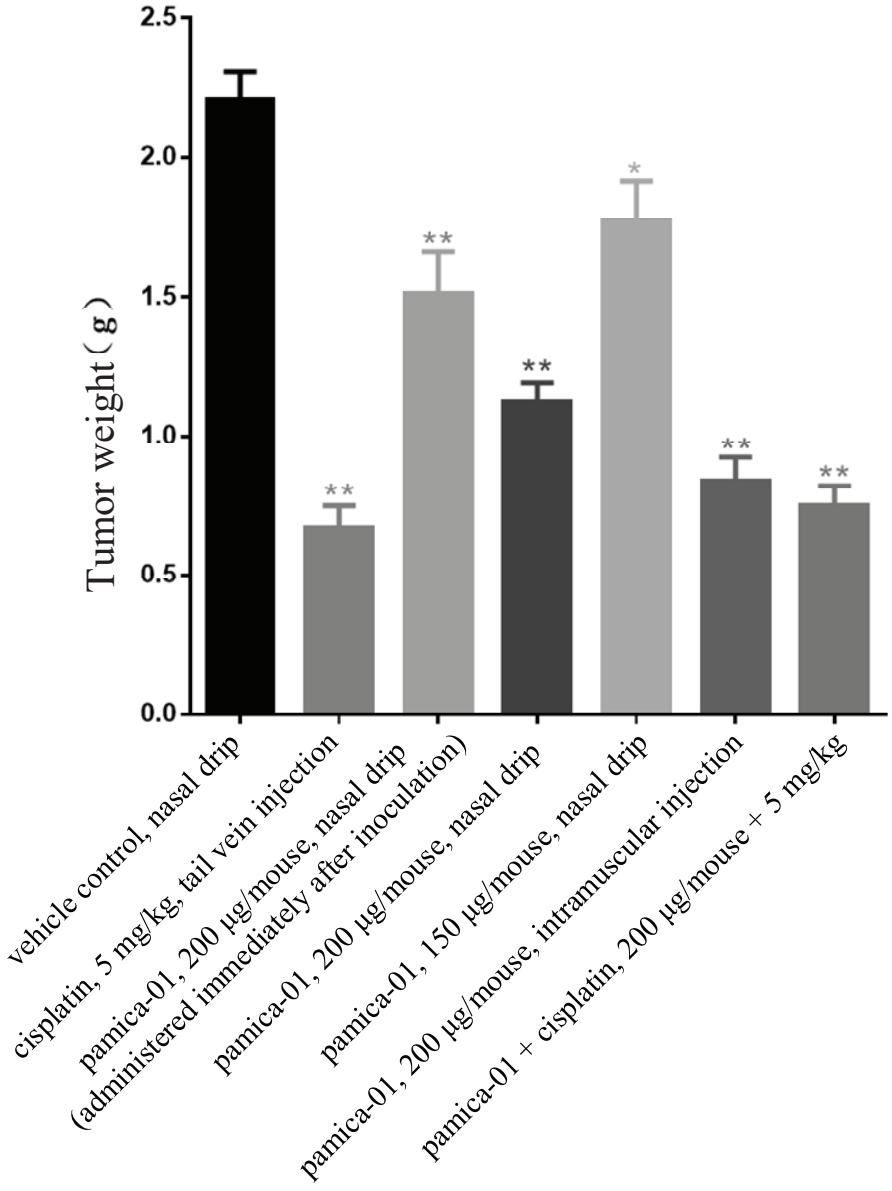

Tumor weight (g)
2.5
2.0
1.5
1.0
0.5
0.0
**
**
**
*
**
**
vehicle control, nasal drip
cisplatin, 5 mg/kg, tail vein injection
pamica-01, 200 μg/mouse, nasal drip
(administered immediately after inoculation)
pamica-01, 200 μg/mouse, nasal drip
pamica-01, 150 μg/mouse, nasal drip
pamica-01, 200 μg/mouse, intramuscular injection
pamica-01 + cisplatin, 200 μg/mouse + 5 mg/kg

FIG. 19

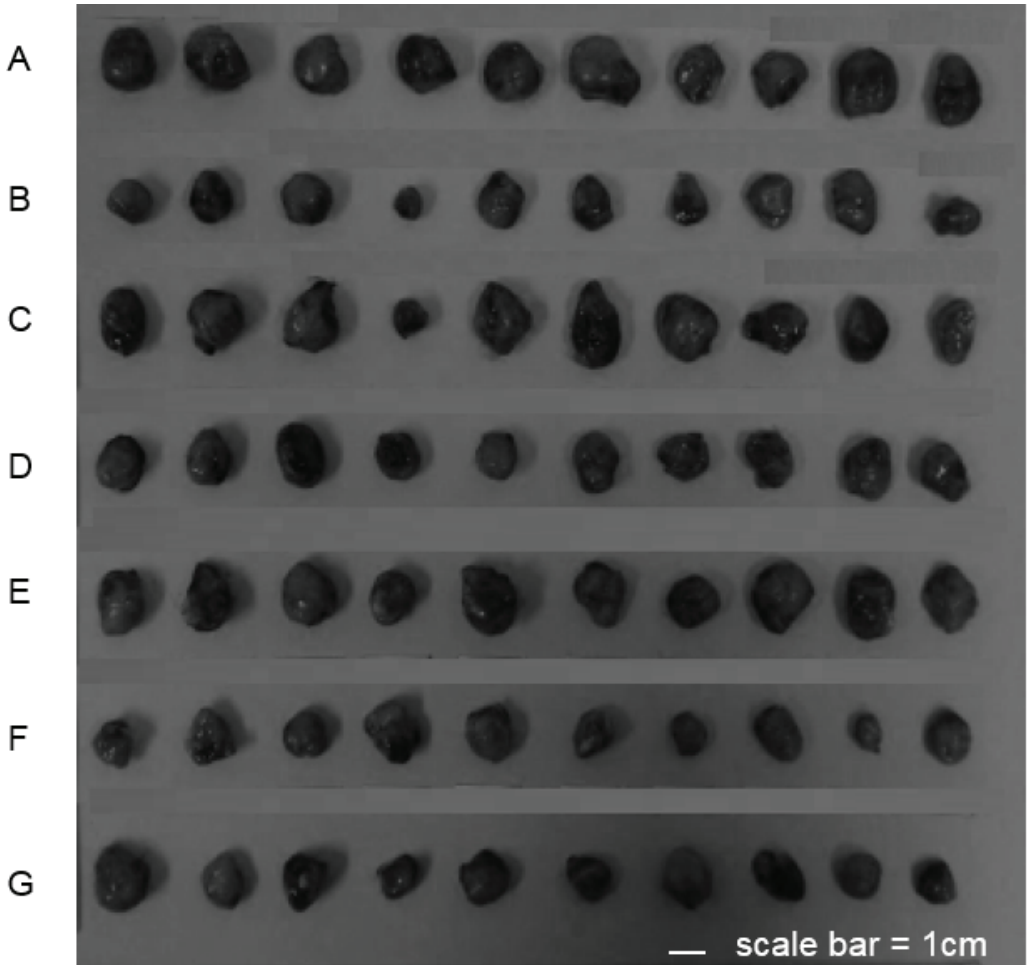


FIG. 20

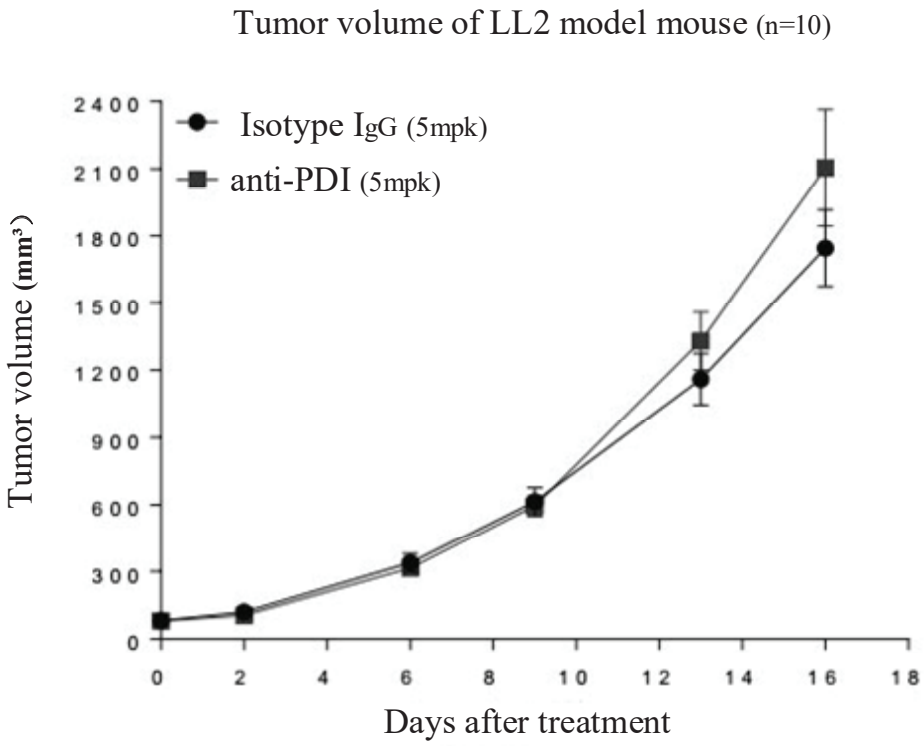

Tumor volume of LL2 model mouse (n=10)
Isotype IgG (5mpk)
anti-PDI (5mpk)
Tumor volume (mm³)
2400
2100
1800
1500
1200
900
600
300
0
0
2
4
6
8
10
12
14
16
18
Days after treatment

FIG. 21

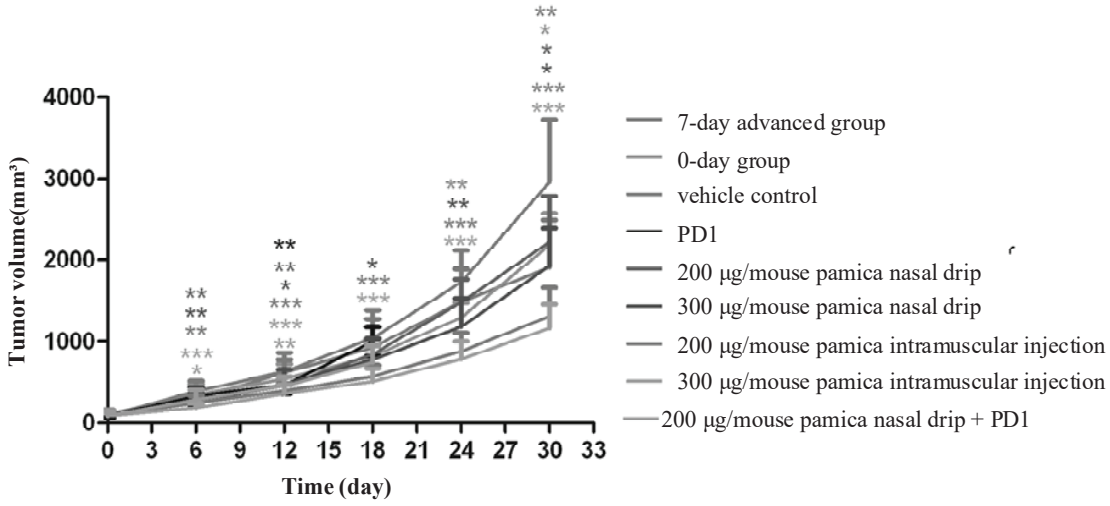

Tumor volume(mm³)
4000
3000
2000
1000
0
0
3
6
9
12
15
18
21
24
27
30
33
Time (day)
7-day advanced group
0-day group
vehicle control
PD1
200 μg/mouse pamica nasal drip
300 μg/mouse pamica nasal drip
200 μg/mouse pamica intramuscular injection
300 μg/mouse pamica intramuscular injection
200 μg/mouse pamica nasal drip + PD1

FIG. 22

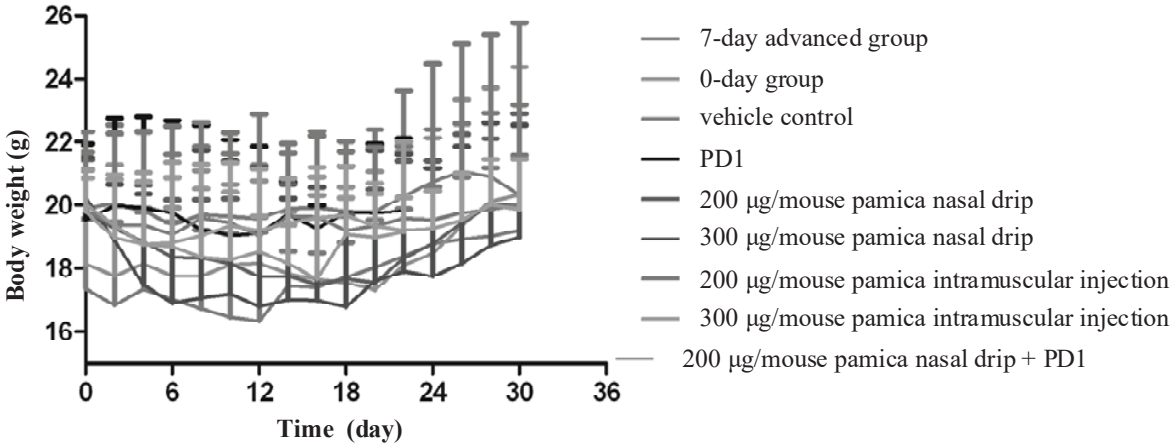

Body weight (g)
26
24
22
20
18
16
0
6
12
18
24
30
36
Time (day)
7-day advanced group
0-day group
vehicle control
PD1
200 μg/mouse pamica nasal drip
300 μg/mouse pamica nasal drip
200 μg/mouse pamica intramuscular injection
300 μg/mouse pamica intramuscular injection
200 μg/mouse pamica nasal drip + PD1

FIG. 23

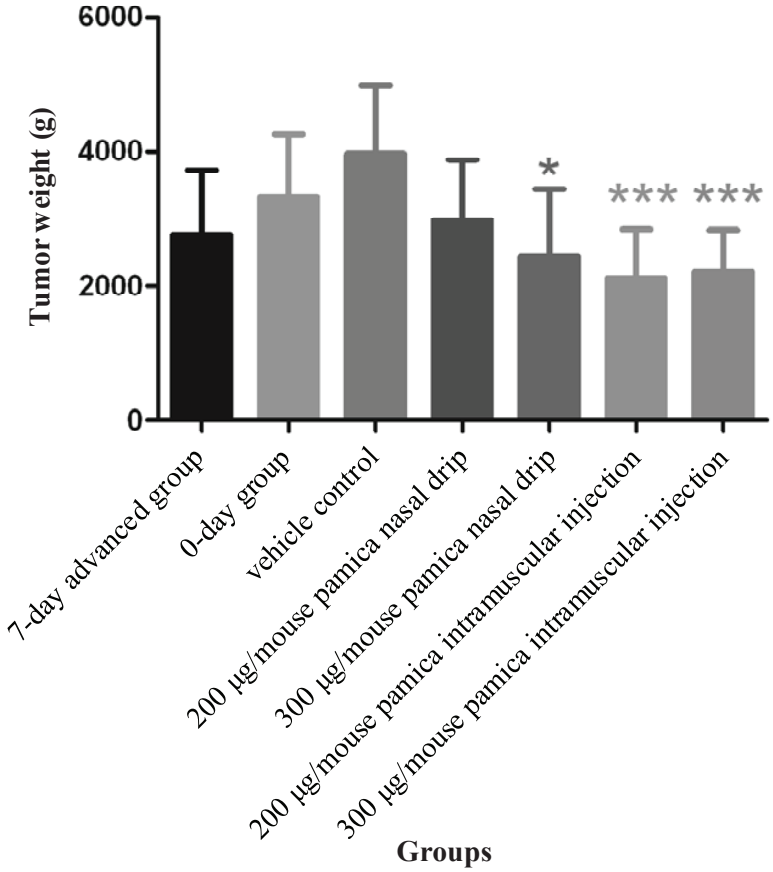

Tumor weight (g)
6000
4000
2000
0
*
***
***
7-day advanced group
0-day group
vehicle control
200 μg/mouse pamica nasal drip
300 μg/mouse pamica nasal drip
200 μg/mouse pamica intramuscular injection
300 μg/mouse pamica intramuscular injection
Groups

FIG. 24

FIG. 25

7-day advanced group

0-day group

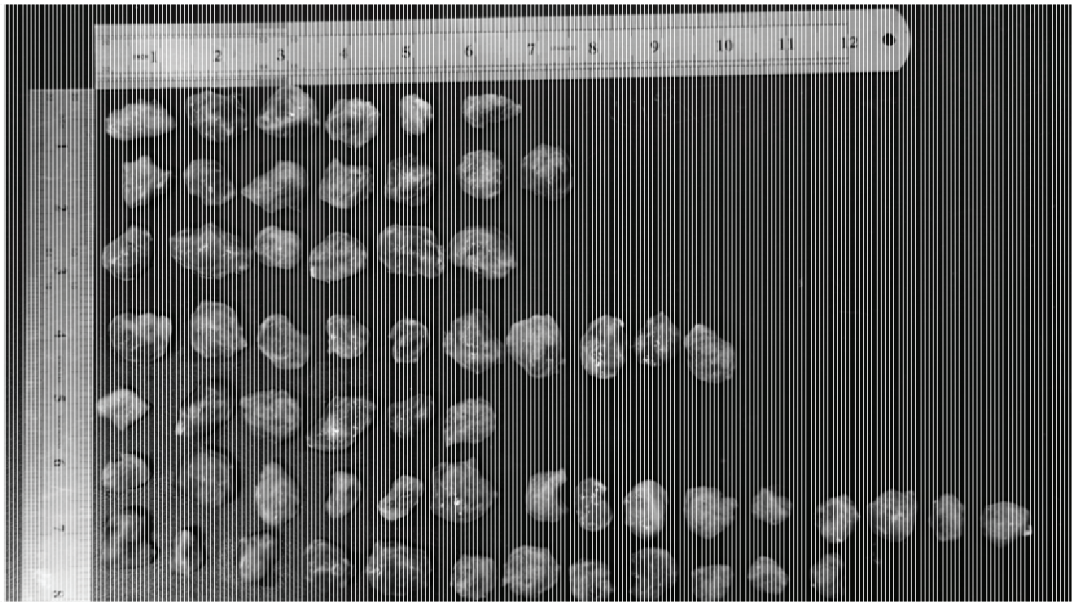
vehicle control

200 μg/mouse pamica nasal drip

300 μg/mouse pamica nasal drip

200 μg/mouse pamica intramuscular injection

300 μg/mouse pamica intramuscular injection



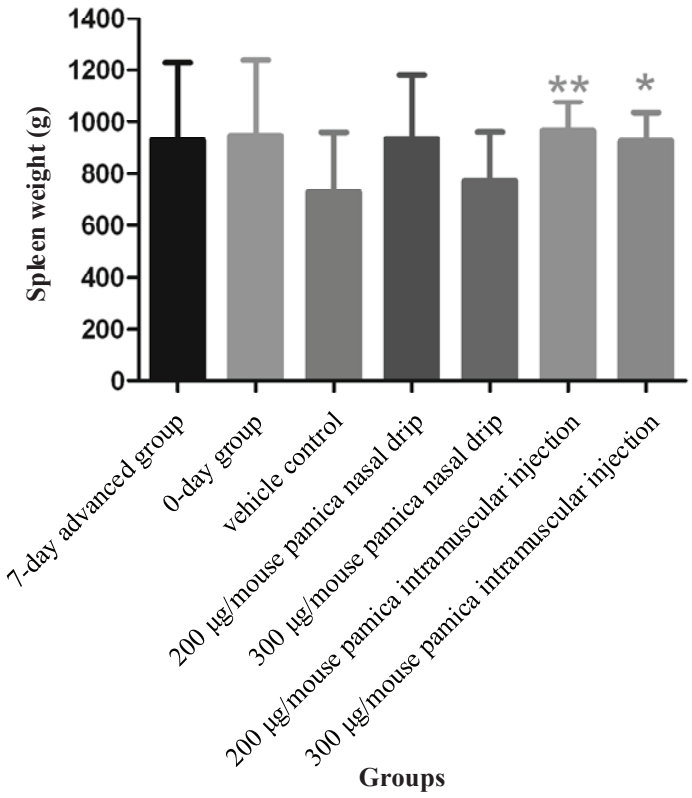
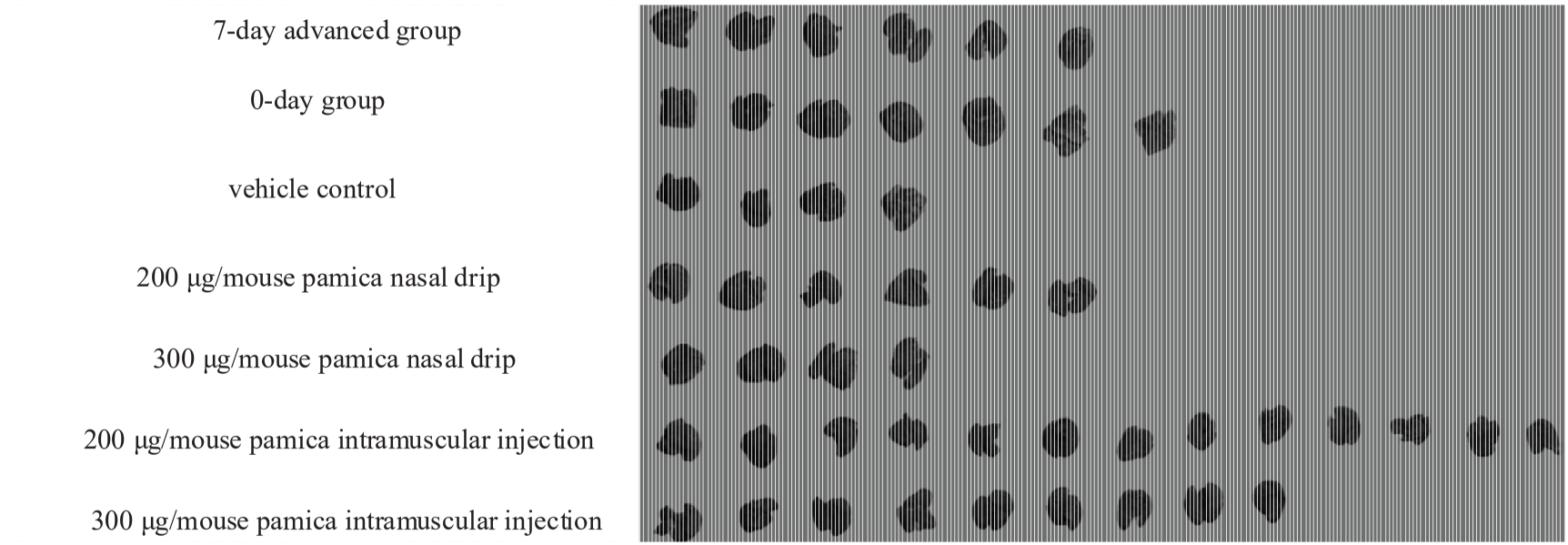

1400
1200
1000
800
600
400
200
0
Spleen weight (g)
**
*
7-day advanced group
0-day group
vehicle control
200 μg/mouse pamica nasal drip
300 μg/mouse pamica nasal drip
200 μg/mouse pamica intramuscular injection
300 μg/mouse pamica intramuscular injection
Groups

FIG. 26

FIG. 27


7-day advanced group
0-day group
vehicle control
200 μg/mouse pamica nasal drip
300 μg/mouse pamica nasal drip
200 μg/mouse pamica intramuscular injection
300 μg/mouse pamica intramuscular injection

7-day advanced group
0-day group
vehicle control
200 μg/mouse pamica nasal drip
300 μg/mouse pamica nasal drip
200 μg/mouse pamica intramuscular injection
300 μg/mouse pamica intramuscular injection

FIG. 28

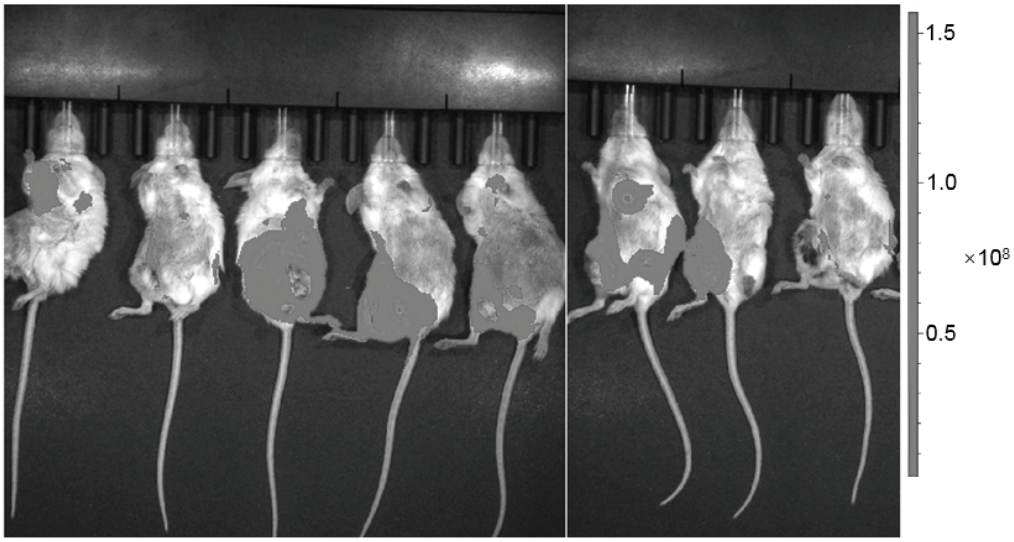


FIG. 29

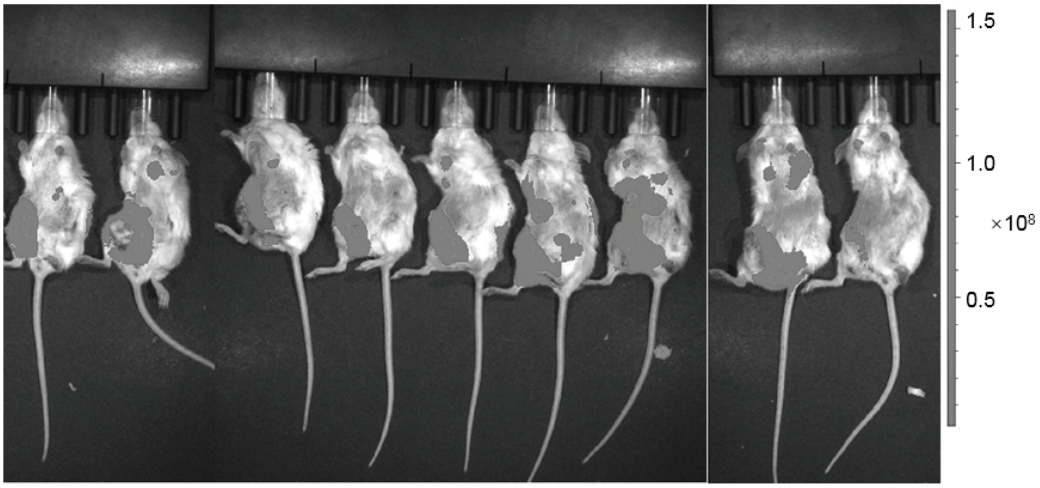


FIG. 30

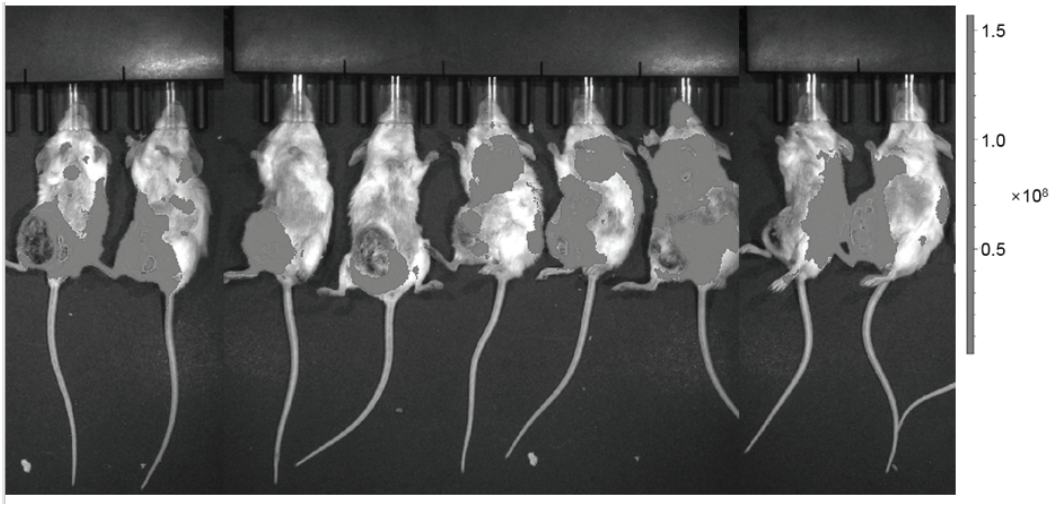


FIG. 31

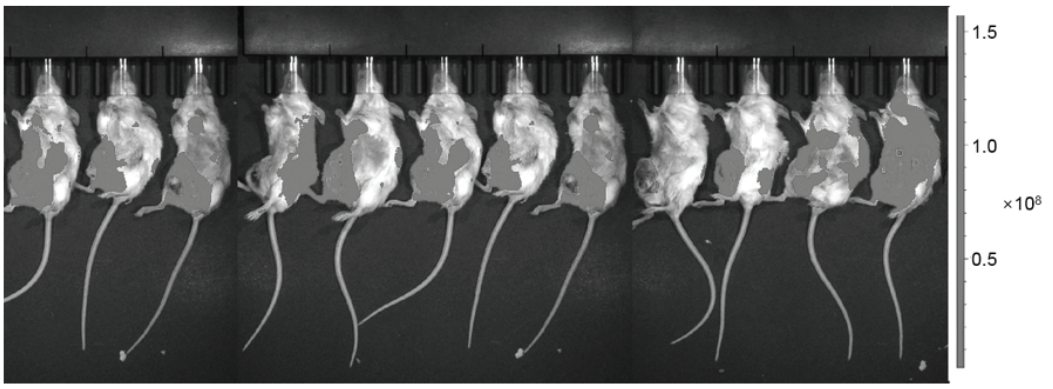


FIG. 32

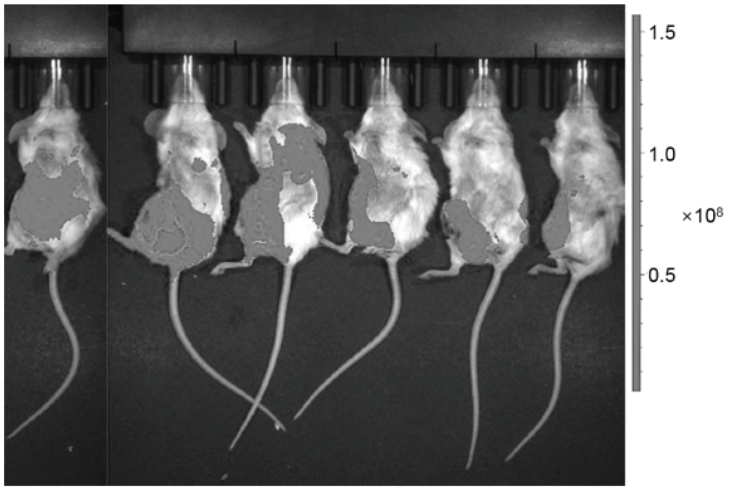


FIG. 33

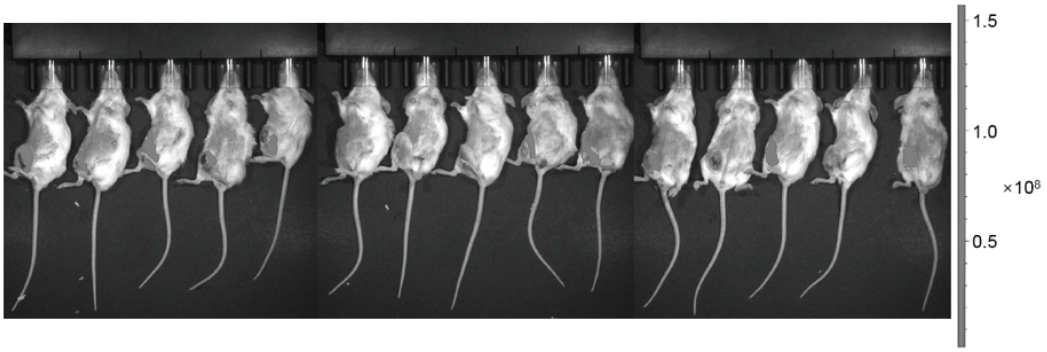


FIG. 34

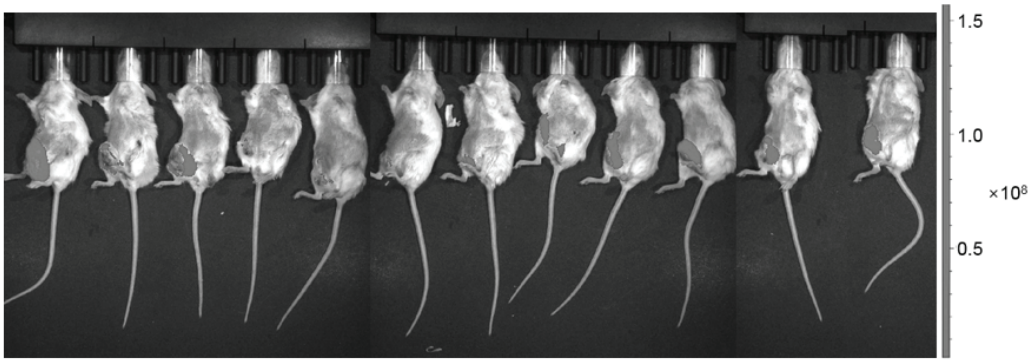


FIG. 35