FIG. 1

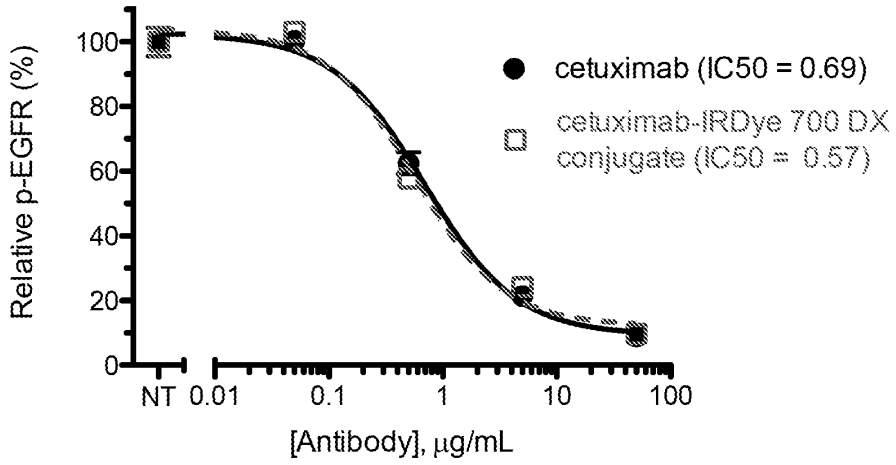

Relative p-EGFR (%)
100
80
60
40
20
0
NT 0.01 0.1 1 10 100
[Antibody], µg/mL
cetuximab (IC50 = 0.69)
cetuximab-IRDye 700 DX conjugate (IC50 = 0.57)

FIG. 2

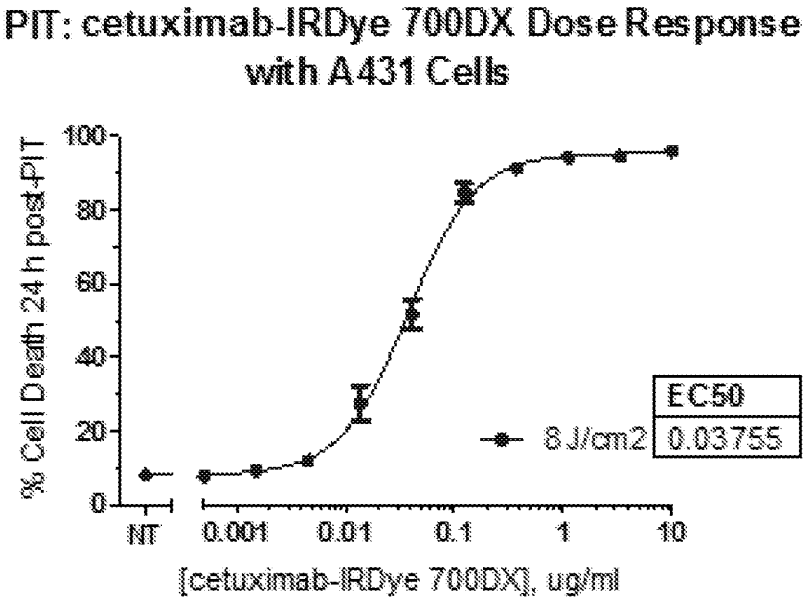
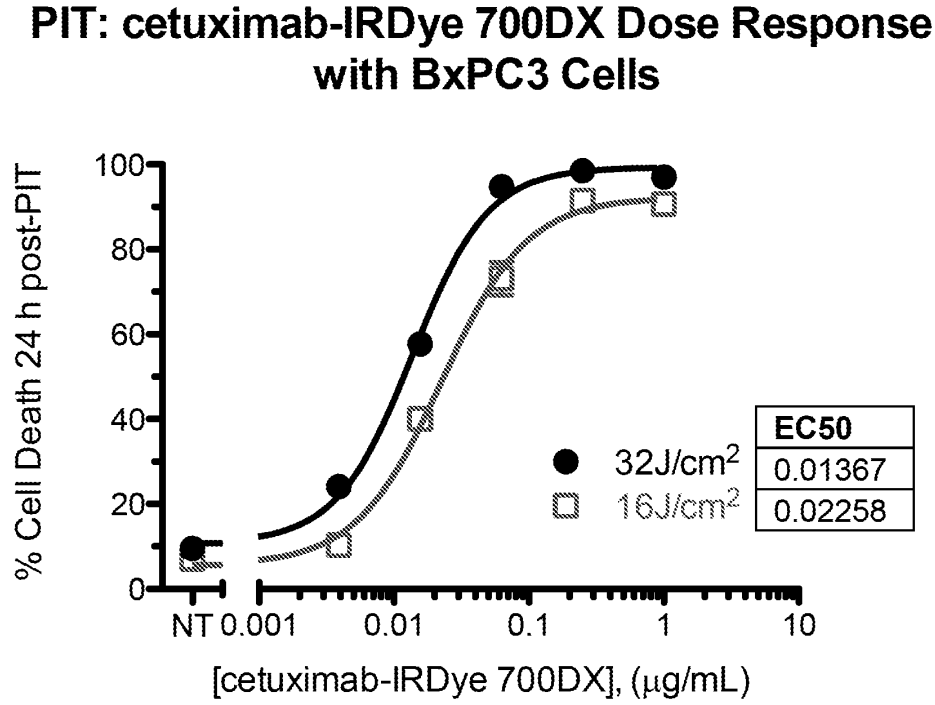

PIT: cetuximab-IRDye 700DX Dose Response with A431 Cells
% Cell Death 24 h post-PIT
100
80
60
40
20
0
NT 0.001 0.01 0.1 1 10
[cetuximab-IRDye 700DX], ug/ml
EC50
8 J/cm2 0.03755

FIG. 3


PIT: cetuximab-IRDye 700DX Dose Response with BxPC3 Cells
% Cell Death 24 h post-PIT
100
80
60
40
20
0
NT 0.001 0.01 0.1 1 10
[cetuximab-IRDye 700DX], (μg/mL)
32J/cm2
16J/cm2
EC50
0.01367
0.02258

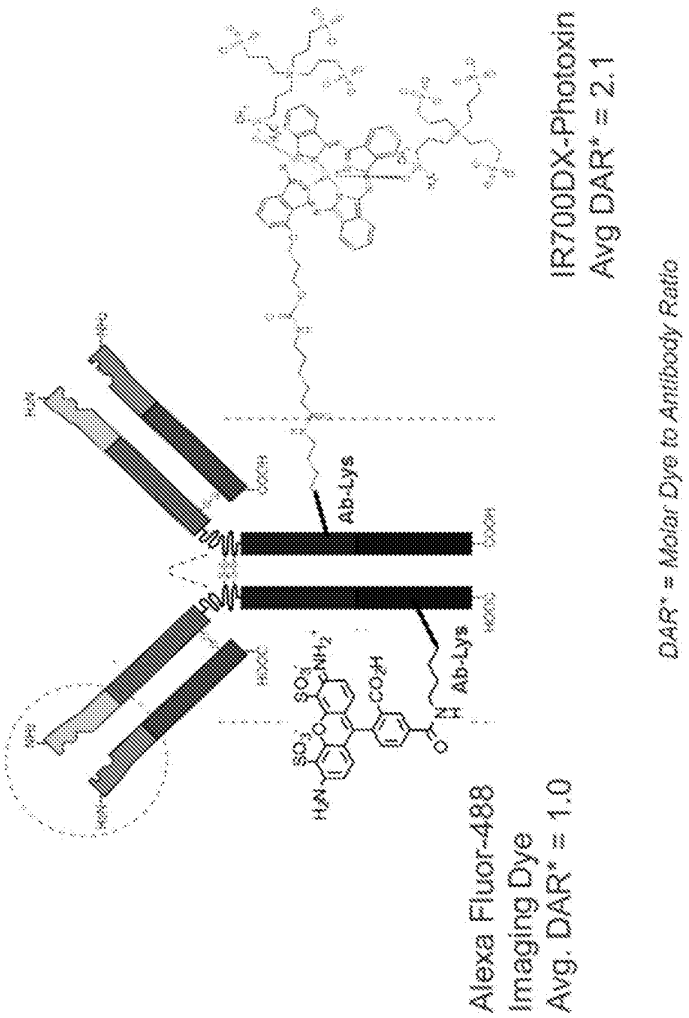

IR700DX-Photoxin
Avg DAR* = 2.1
DAR* = Molar Dye to Antibody Ratio
Alexa Fluor-488
Imaging Dye
Avg. DAR* = 1.0
Ab-Lys
Ab-Lys

FIG. 4

FIG. 5A

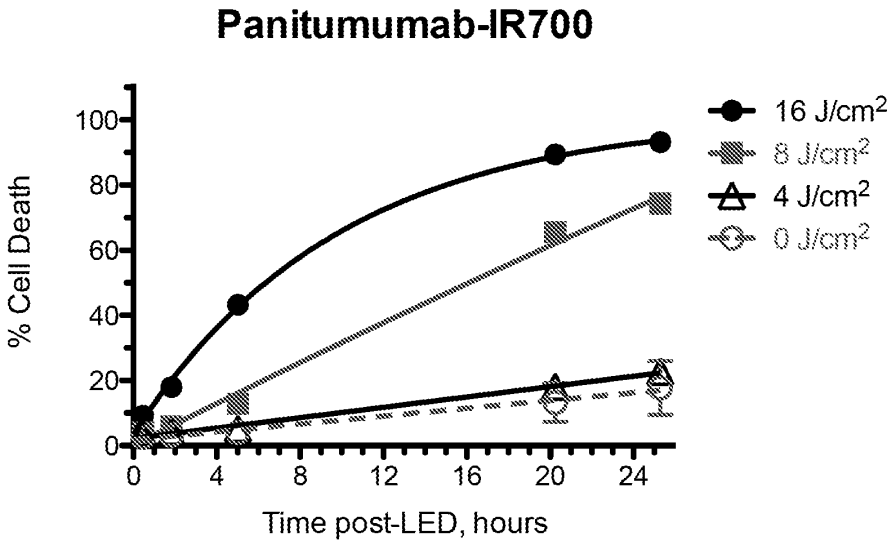

Panitumumab-IR700
% Cell Death
100
80
60
40
20
0
0
4
8
12
16
20
24
Time post-LED, hours
16 J/cm2
8 J/cm2
4 J/cm2
0 J/cm2

FIG. 5B

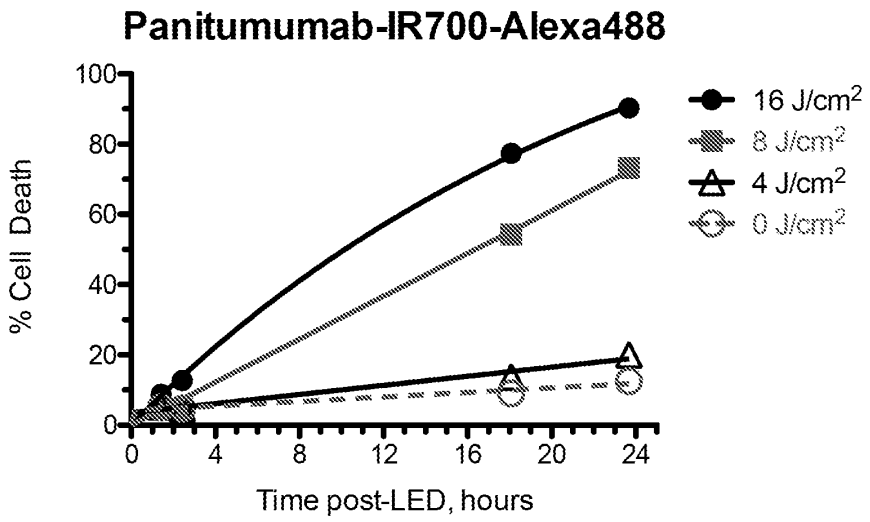
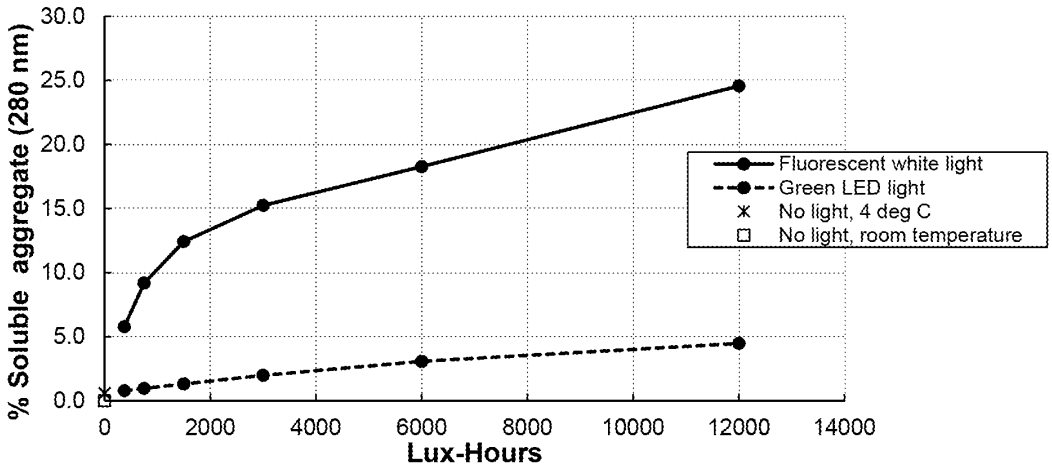

Panitumumab-IR700-Alexa488
% Cell Death
100
80
60
40
20
0
0
4
8
12
16
20
24
Time post-LED, hours
16 J/cm2
8 J/cm2
4 J/cm2
0 J/cm2

FIG. 6A


% Soluble aggregate (280 nm)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
0
2000
4000
6000
8000
10000
12000
14000
Lux-Hours
Fluorescent white light
Green LED light
No light, 4 deg C
No light, room temperature

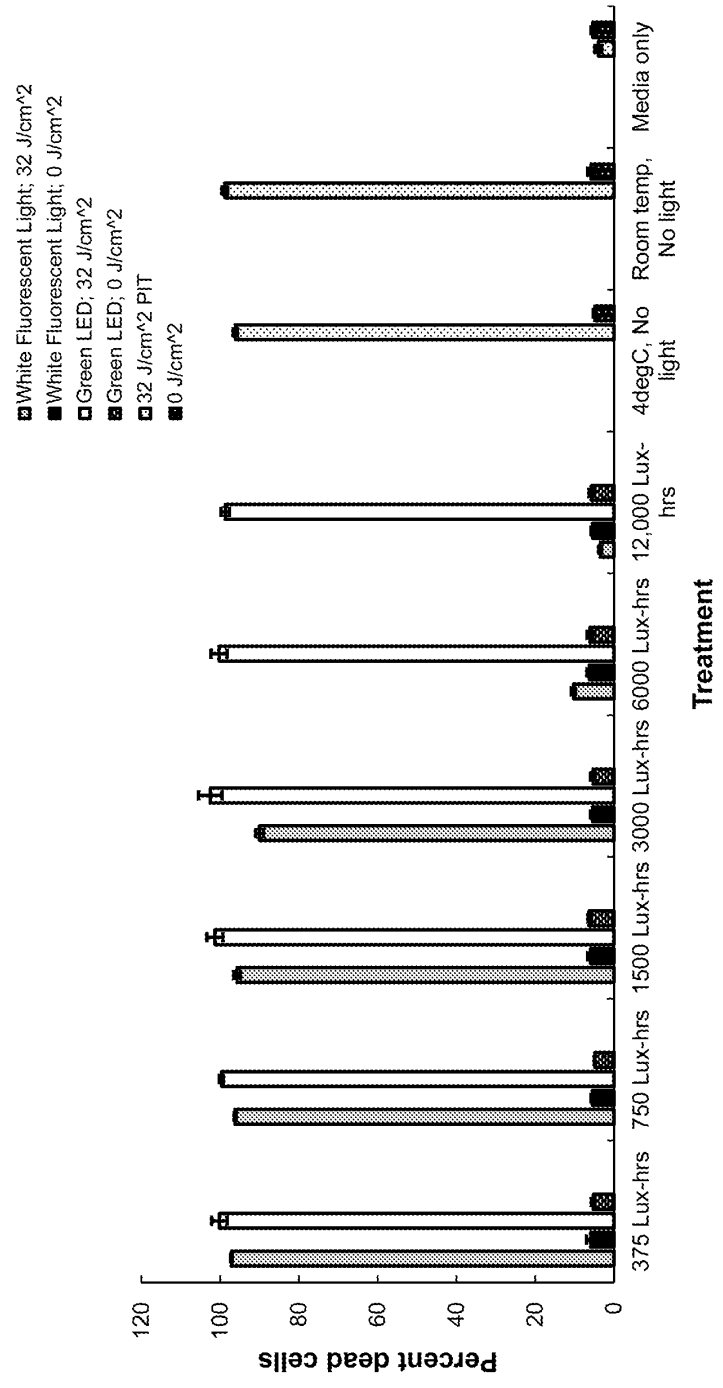

White Fluorescent Light; 32 J/cm^2
White Fluorescent Light; 0 J/cm^2
Green LED; 32 J/cm^2
Green LED; 0 J/cm^2
32 J/cm^2 PIT
0 J/cm^2
Percent dead cells
120
100
80
60
40
20
0
375 Lux-hrs
750 Lux-hrs
1500 Lux-hrs
3000 Lux-hrs
6000 Lux-hrs
12,000 Lux-hrs
4degC, No light
Room temp, No light
Media only
Treatment

FIG. 6B

FIG. 6C

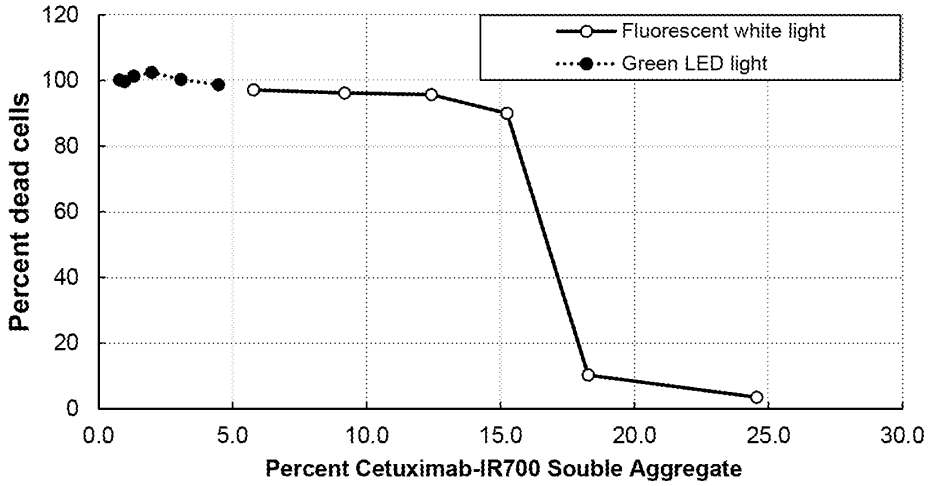

Fluorescent white light
Green LED light
Percent dead cells
120
100
80
60
40
20
0
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Percent Cetuximab-IR700 Souble Aggregate

FIG. 7

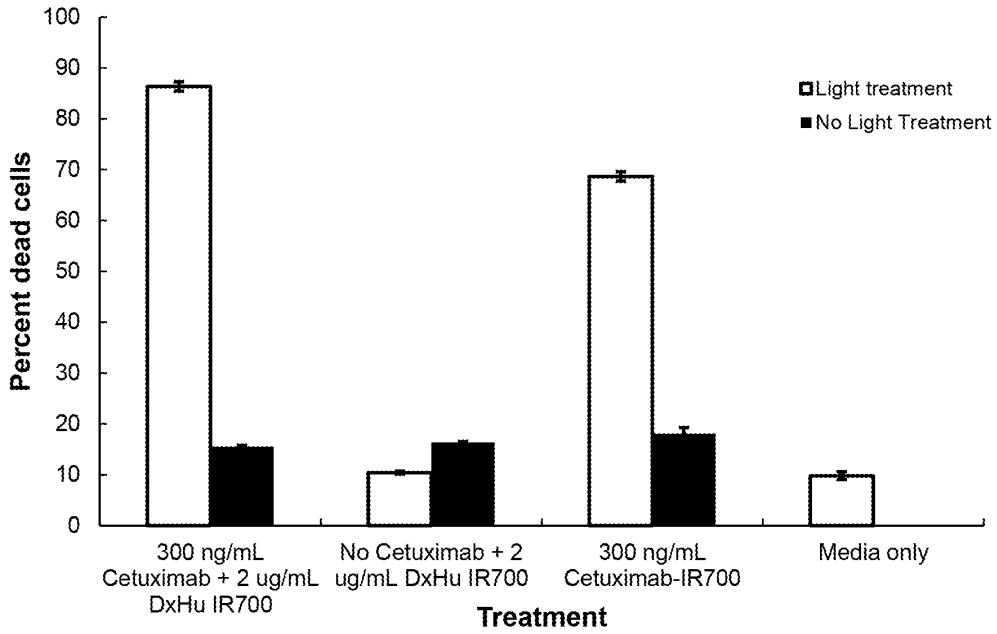

Light treatment
No Light Treatment
Percent dead cells
100
90
80
70
60
50
40
30
20
10
0
300 ng/mL Cetuximab + 2 ug/mL DxHu IR700
No Cetuximab + 2 ug/mL DxHu IR700
300 ng/mL Cetuximab-IR700
Media only
Treatment

FIG. 8A

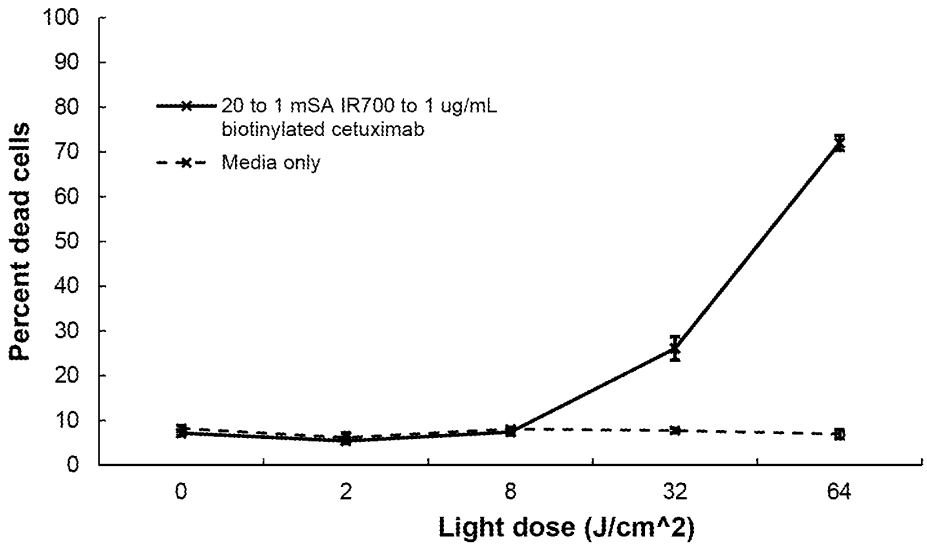

100
90
80
70
60
50
40
30
20
10
0
Percent dead cells
20 to 1 mSA IR700 to 1 ug/mL biotinylated cetuximab
Media only
0
2
8
32
64
Light dose (J/cm^2)

FIG. 8B

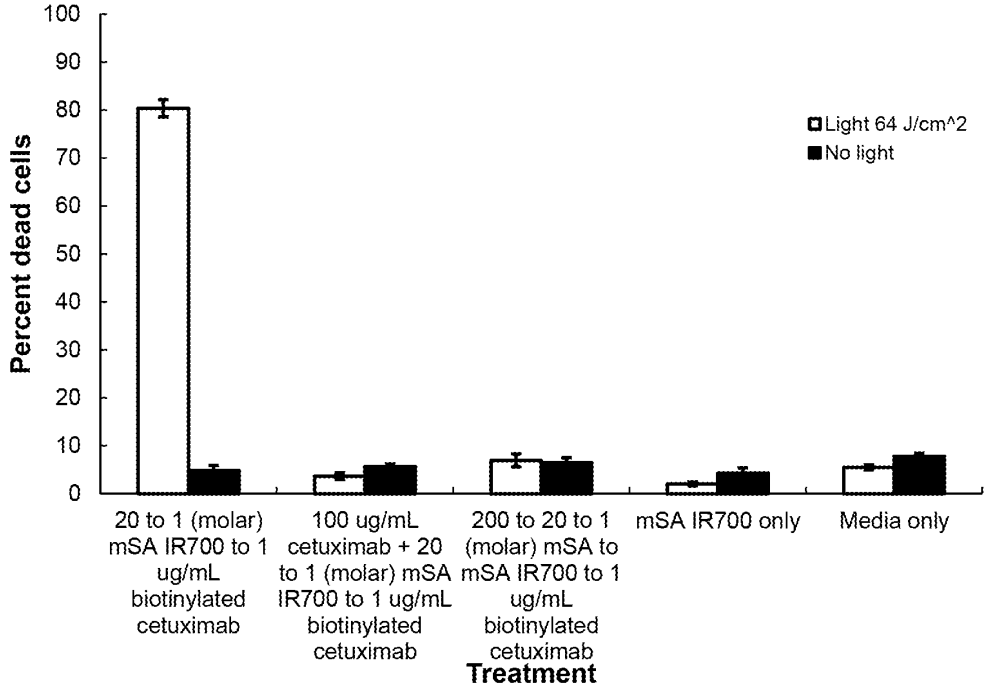

100
90
80
70
60
50
40
30
20
10
0
Percent dead cells
Light 64 J/cm^2
No light
20 to 1 (molar) mSA IR700 to 1 ug/mL biotinylated cetuximab
100 ug/mL cetuximab + 20 to 1 (molar) mSA IR700 to 1 ug/mL biotinylated cetuximab
200 to 20 to 1 (molar) mSA to mSA IR700 to 1 ug/mL biotinylated cetuximab
mSA IR700 only
Media only
Treatment

FIG. 8C

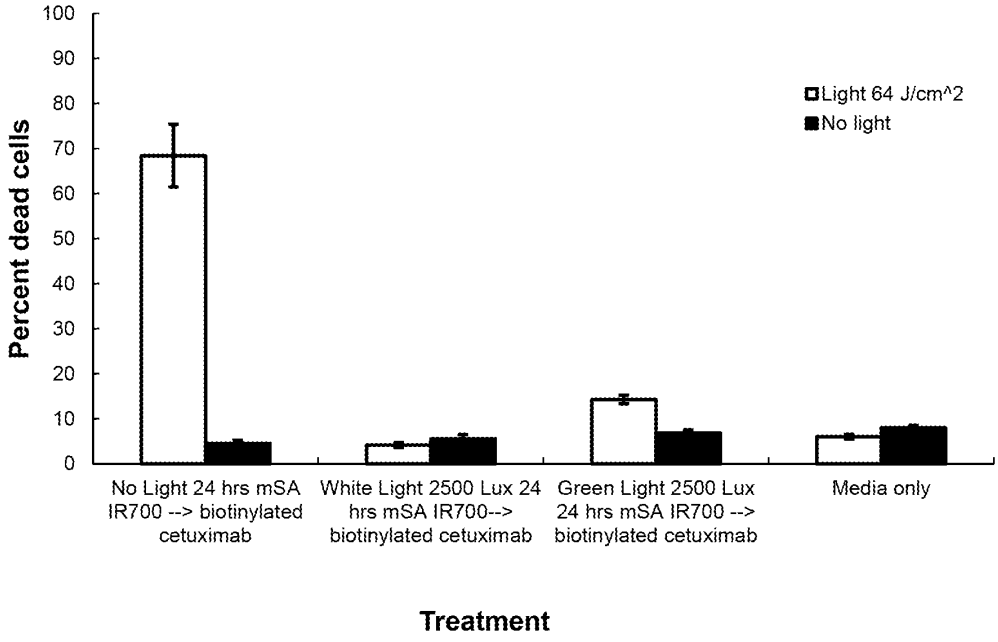

100
90
80
70
60
50
40
30
20
10
0
Percent dead cells
Light 64 J/cm^2
No light
No Light 24 hrs mSA IR700 --> biotinylated cetuximab
White Light 2500 Lux 24 hrs mSA IR700--> biotinylated cetuximab
Green Light 2500 Lux 24 hrs mSA IR700 --> biotinylated cetuximab
Media only
Treatment

FIG. 9A

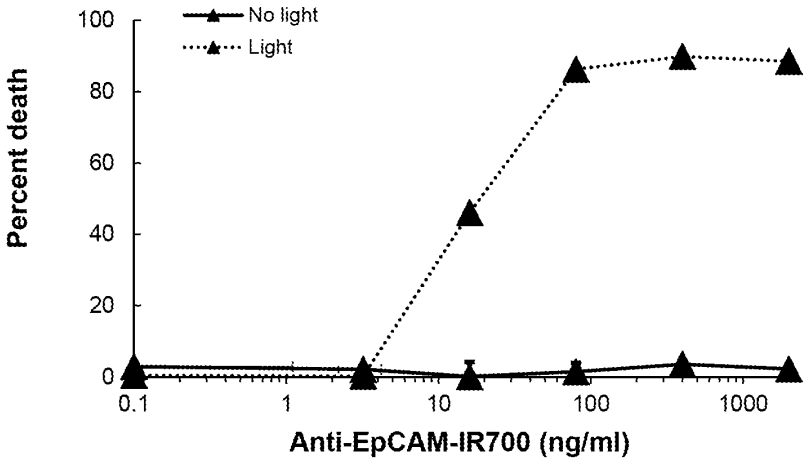

No light
Light
Percent death
100
80
60
40
20
0
0.1
1
10
100
1000
Anti-EpCAM-IR700 (ng/ml)

FIG. 9B

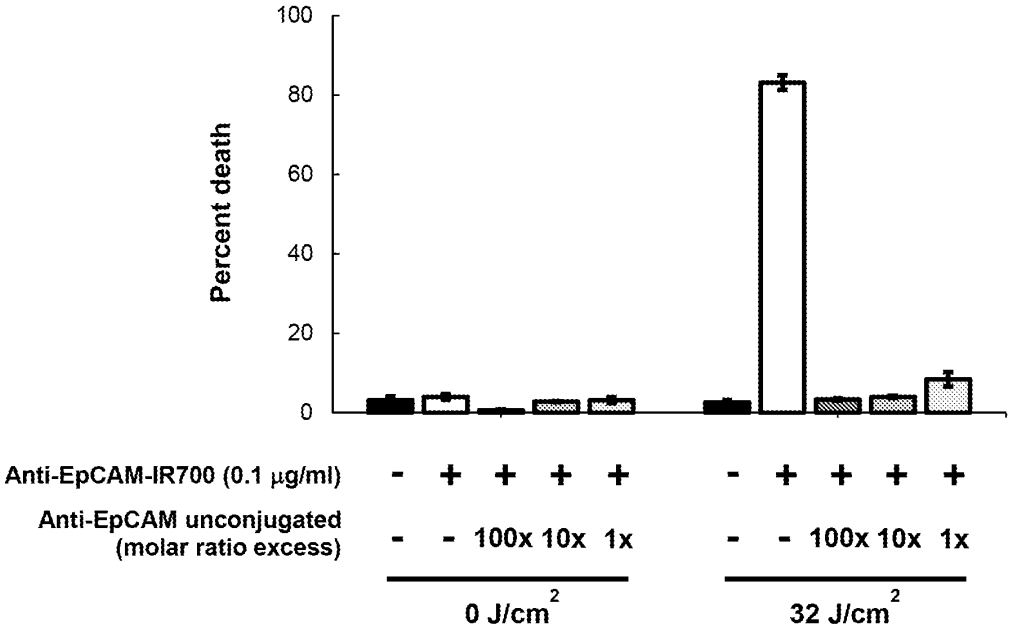

Percent death
100
80
60
40
20
0
Anti-EpCAM-IR700 (0.1 μg/ml)
- + + + + - + + + +
Anti-EpCAM unconjugated
(molar ratio excess)
- - 100x 10x 1x - - 100x 10x 1x
0 J/cm2
32 J/cm2

FIG. 10

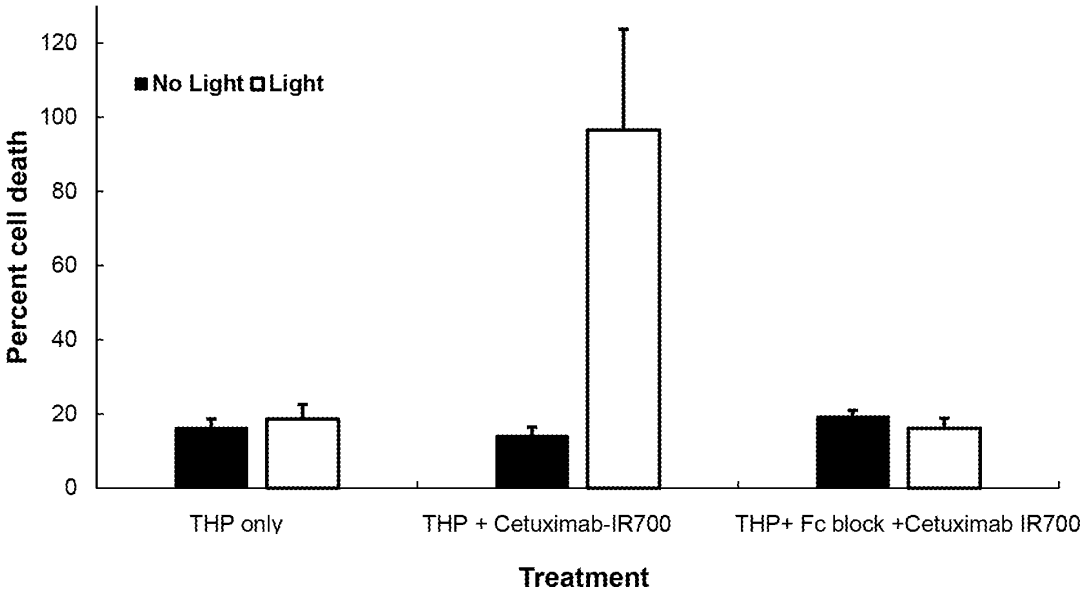

120
100
80
60
40
20
0
No Light
Light
Percent cell death
THP only
THP + Cetuximab-IR700
THP+ Fc block +Cetuximab IR700
Treatment

FIG. 11A

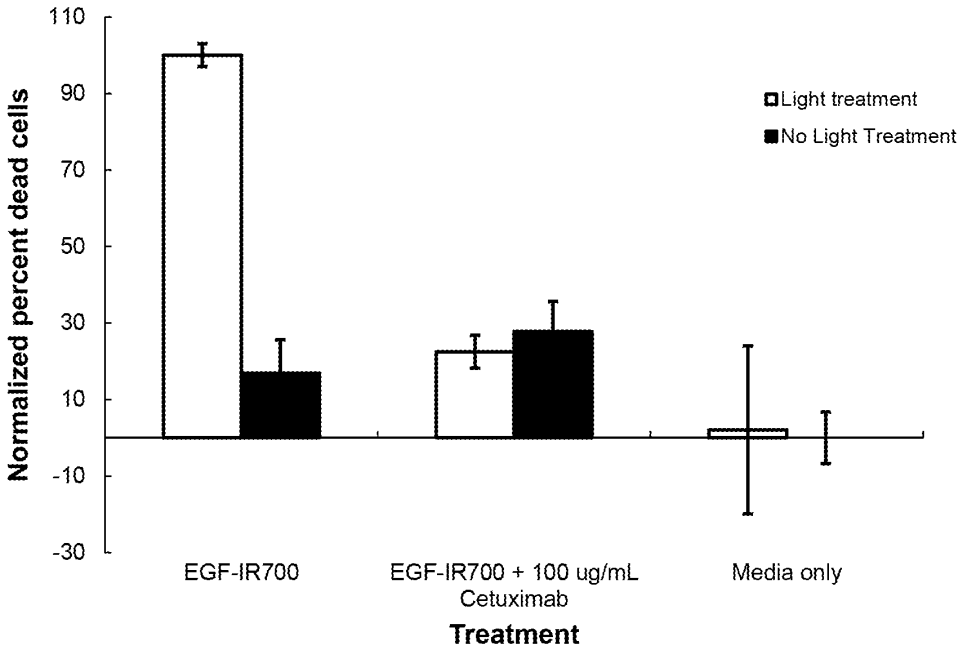

110
90
70
50
30
10
-10
-30
Normalized percent dead cells
Light treatment
No Light Treatment
EGF-IR700
EGF-IR700 + 100 ug/mL Cetuximab
Media only
Treatment

FIG. 11B

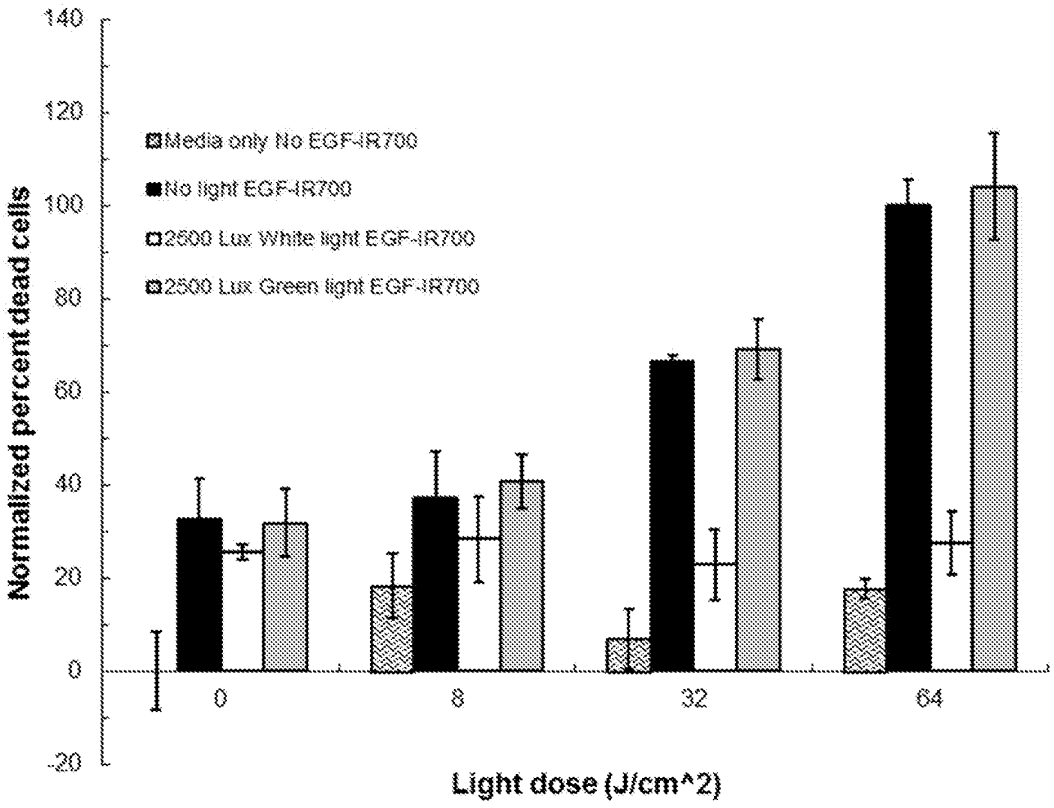

140
120
100
80
60
40
20
0
-20
Normalized percent dead cells
Media only No EGF-IR700
No light EGF-IR700
2500 Lux White light EGF-IR700
2500 Lux Green light EGF-IR700
0
8
32
64
Light dose (J/cm^2)

FIG. 12A

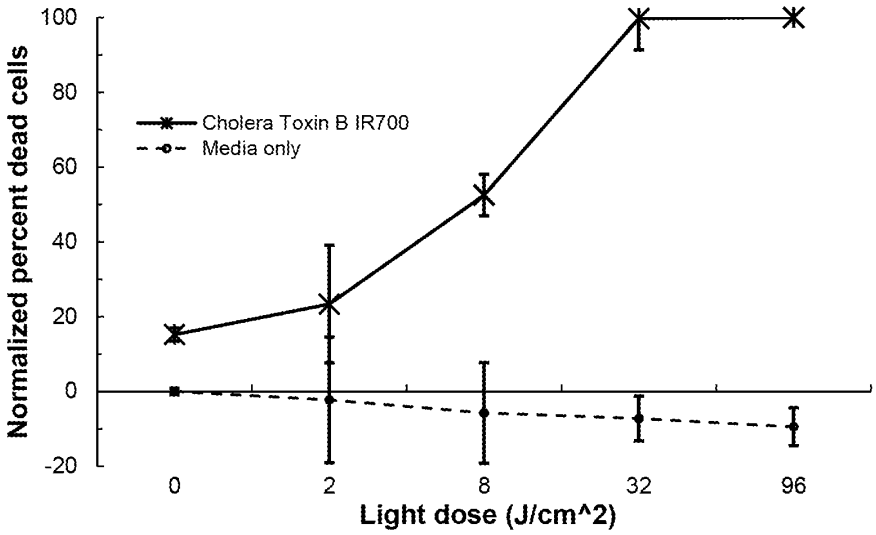


FIG. 12B

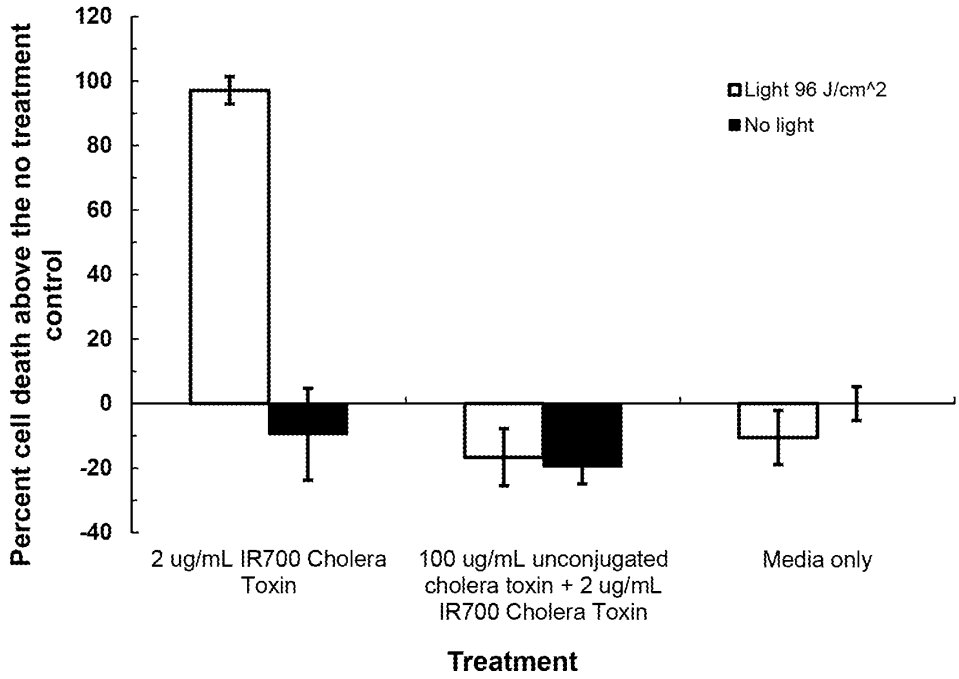


FIG. 12C

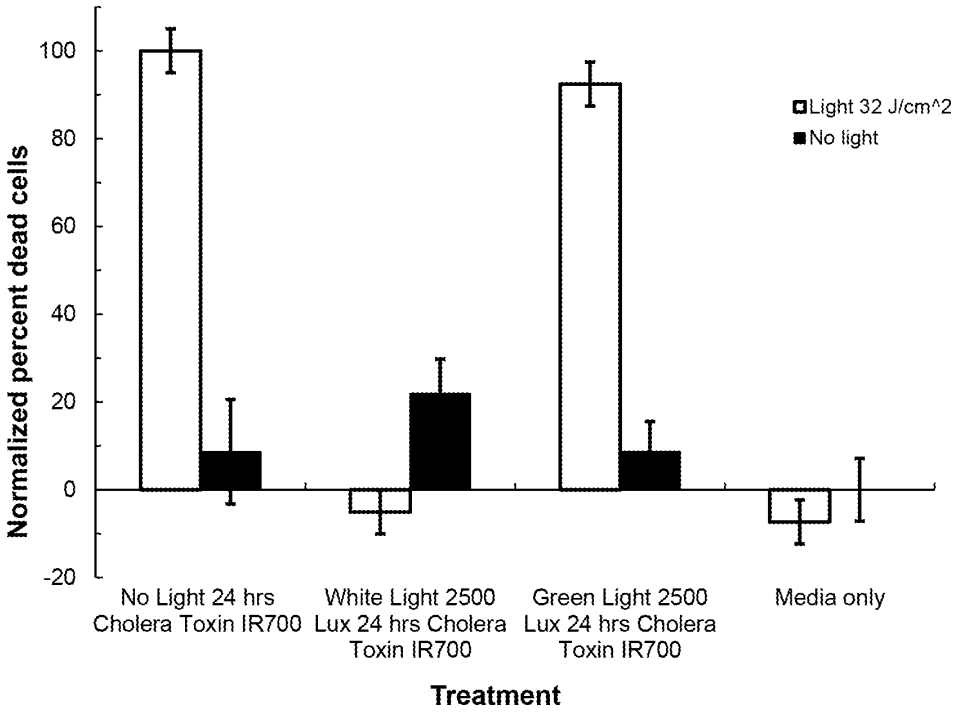

100
80
60
40
20
0
-20
Normalized percent dead cells
Light 32 J/cm^2
No light
No Light 24 hrs Cholera Toxin IR700
White Light 2500 Lux 24 hrs Cholera Toxin IR700
Green Light 2500 Lux 24 hrs Cholera Toxin IR700
Media only
Treatment

FIG. 13A

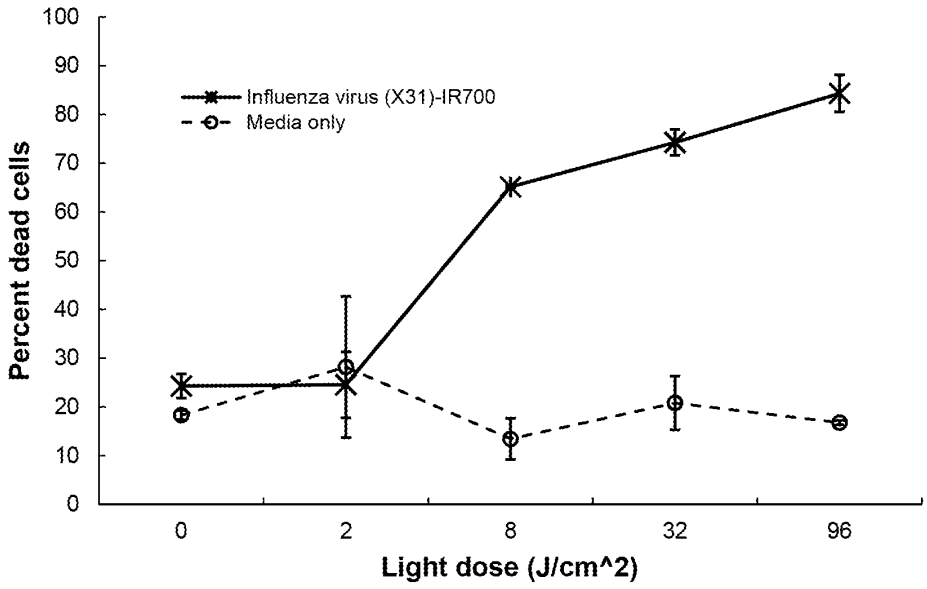


FIG. 13B

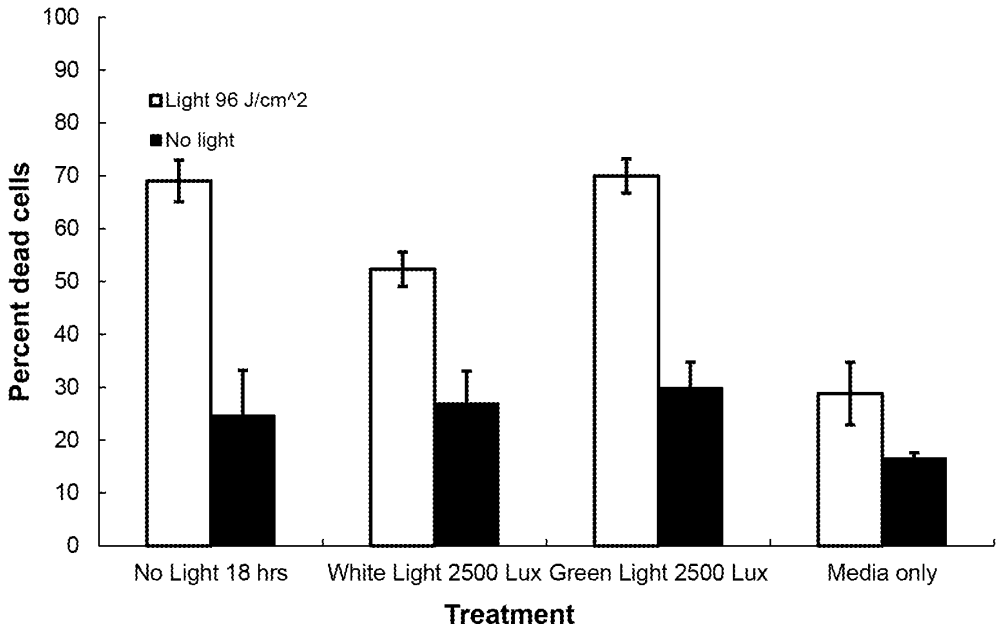


FIG. 14A

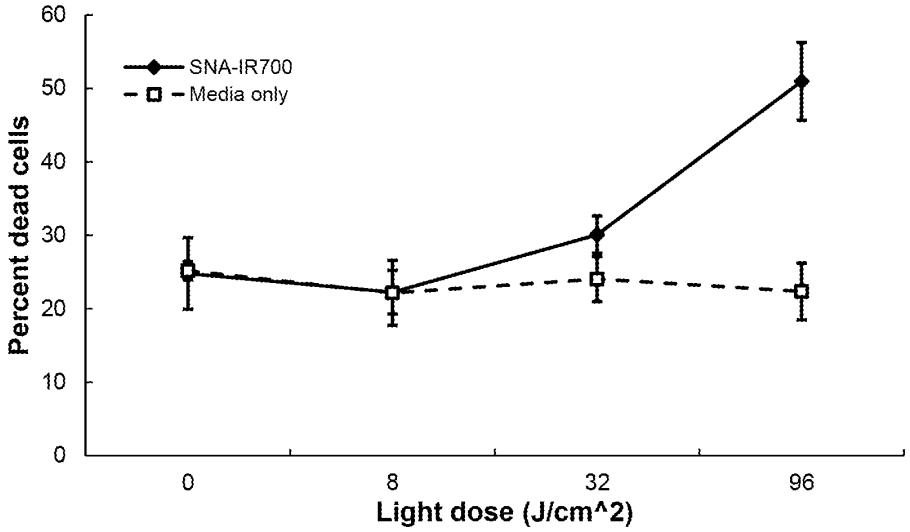


FIG. 14B

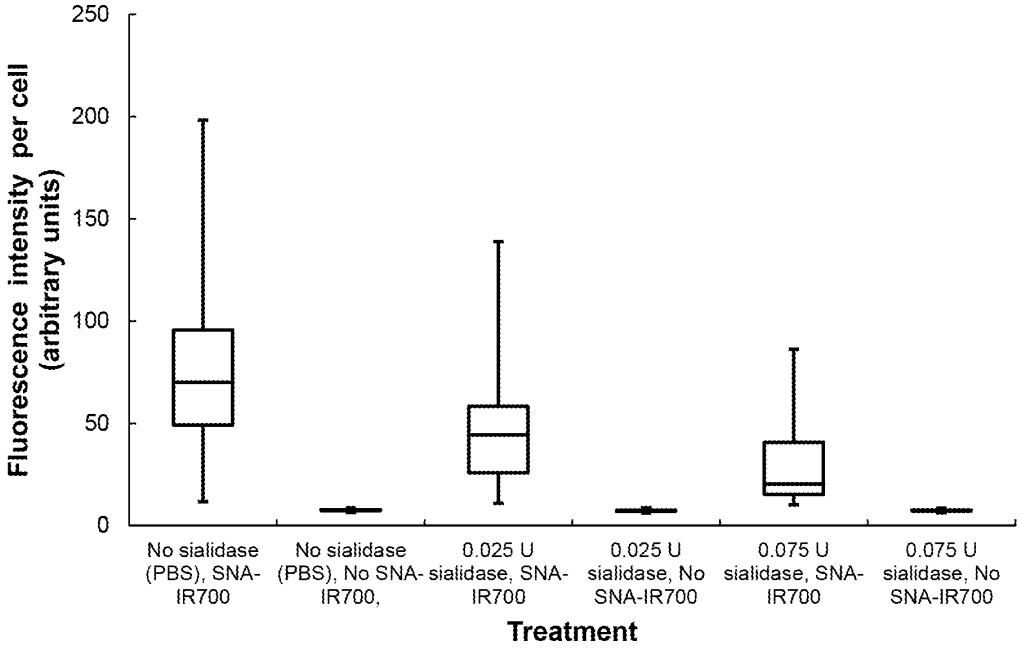


FIG. 15

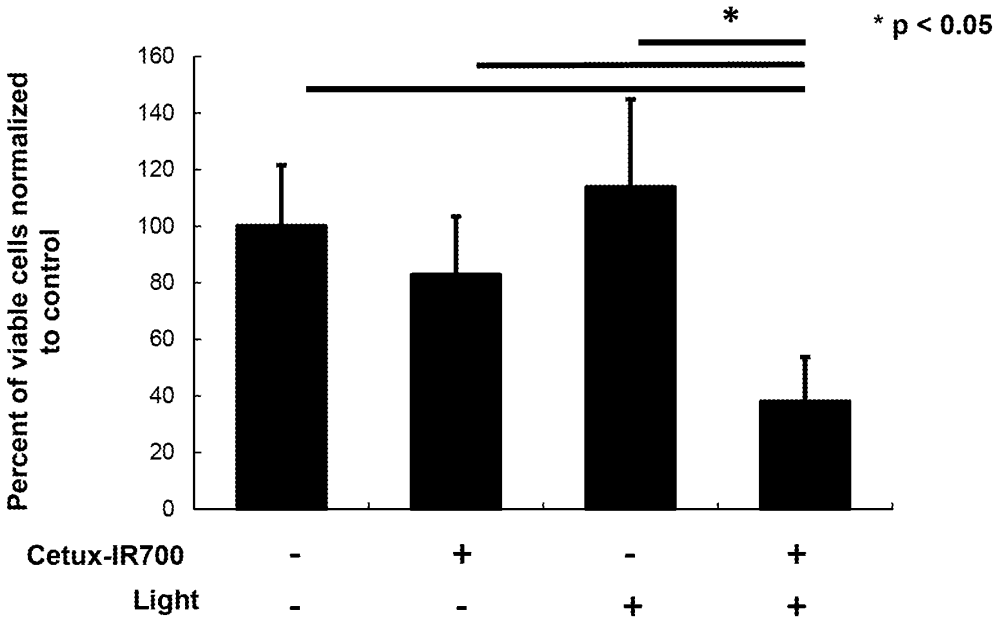

*
* p < 0.05
Percent of viable cells normalized to control
160
140
120
100
80
60
40
20
0
Cetux-IR700 - + - +
Light - - + +

FIG. 16

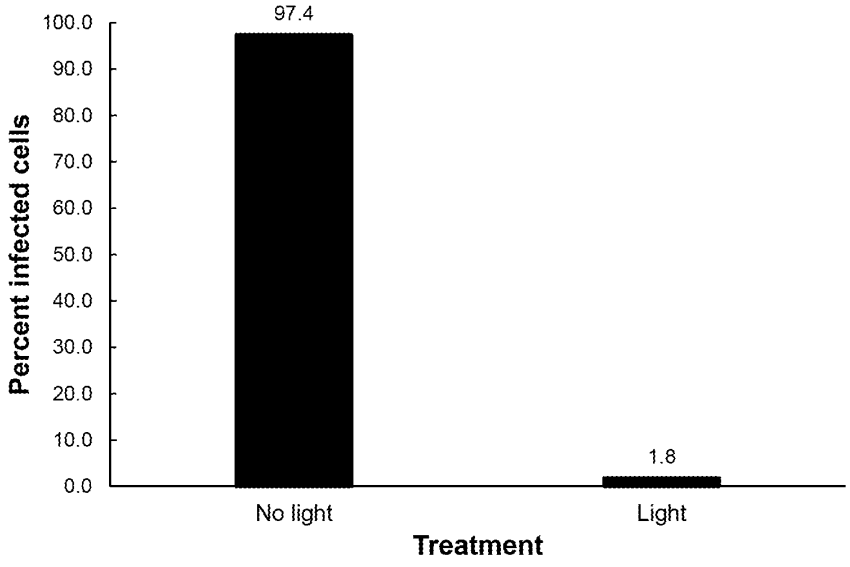

97.4
1.8
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Percent infected cells
No light
Light
Treatment

FIG. 17

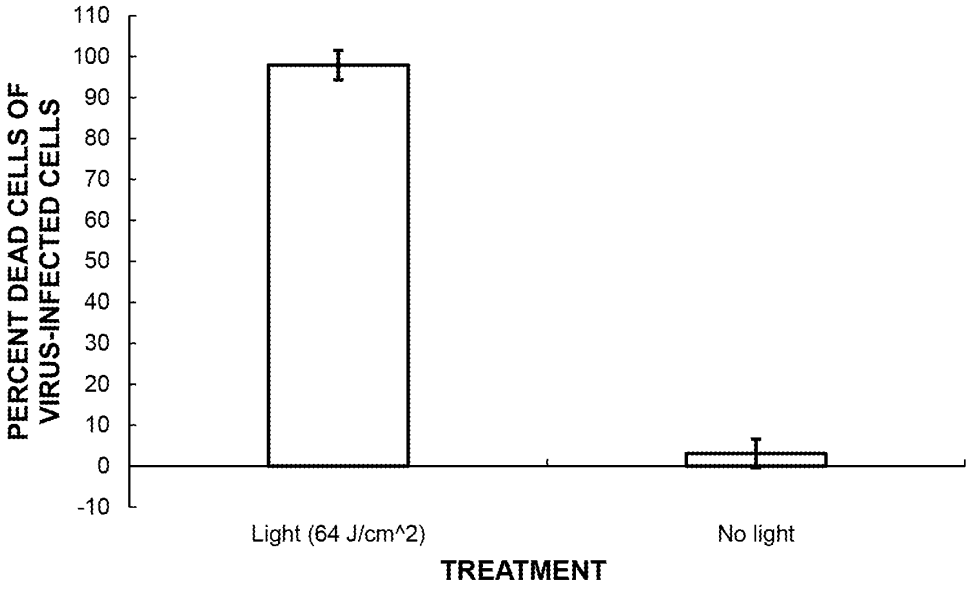

PERCENT DEAD CELLS OF VIRUS-INFECTED CELLS
110
100
90
80
70
60
50
40
30
20
10
0
-10
Light (64 J/cm^2)
No light
TREATMENT

FIG. 18

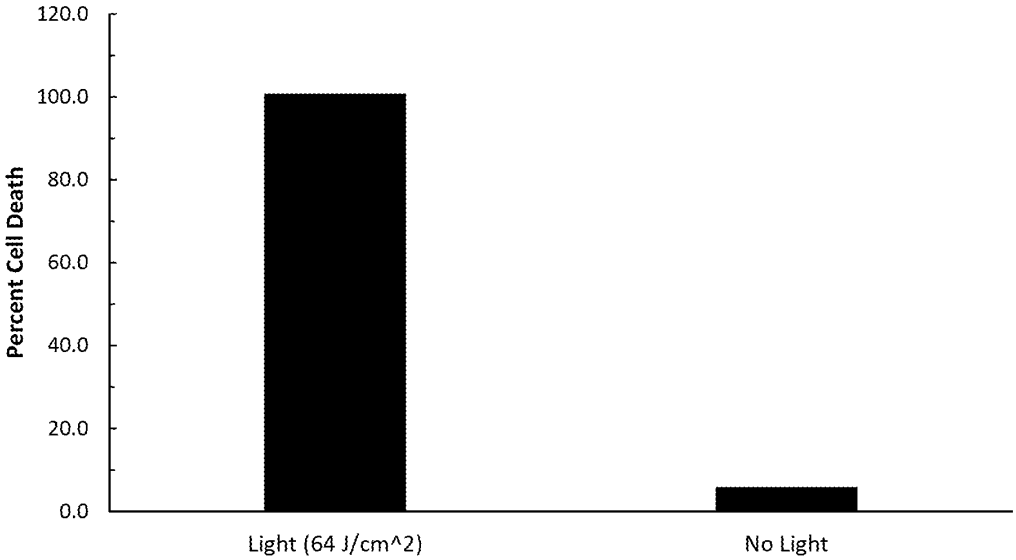

Percent Cell Death
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Light (64 J/cm^2)
No Light

FIG. 19A

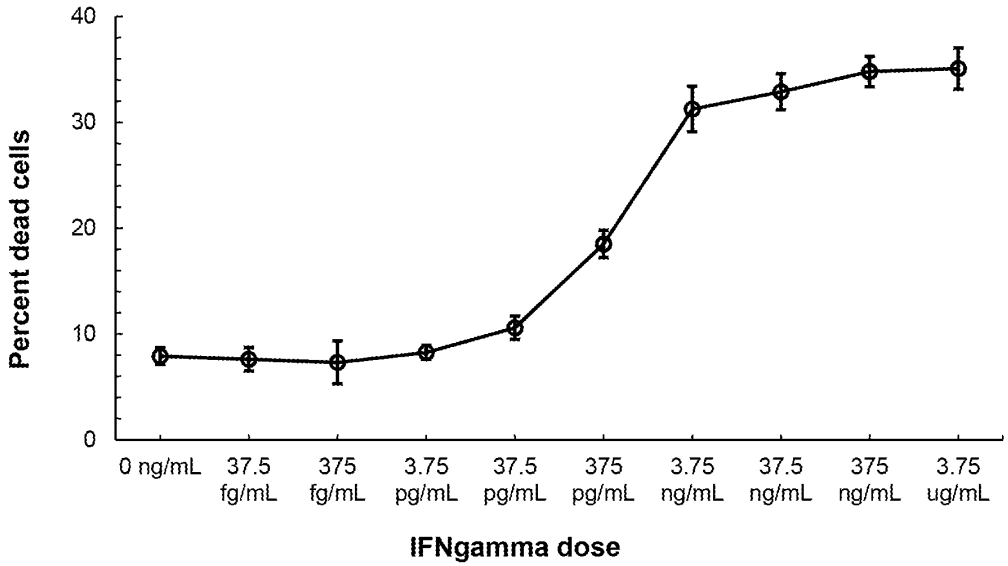


FIG. 19B

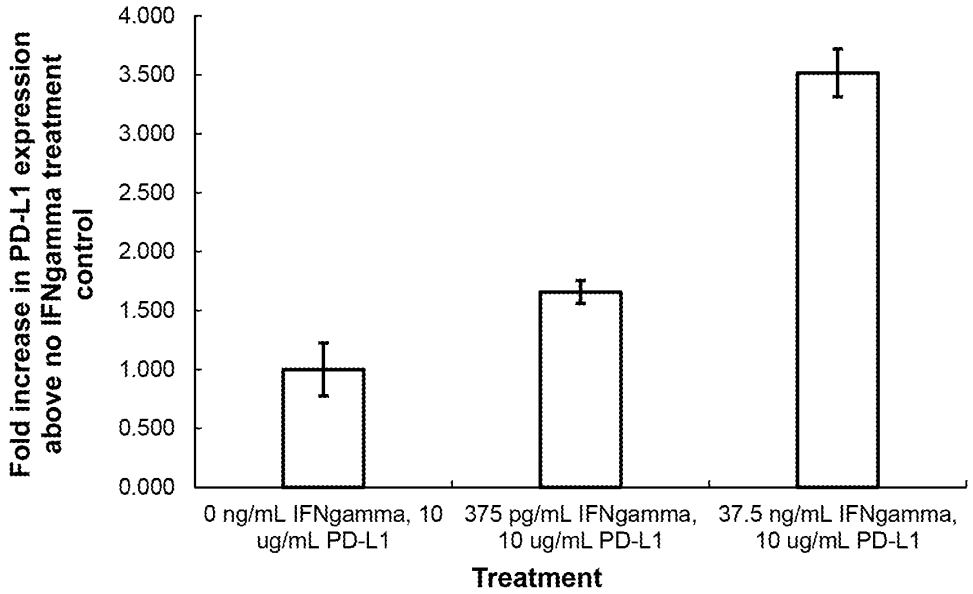


FIG. 19C

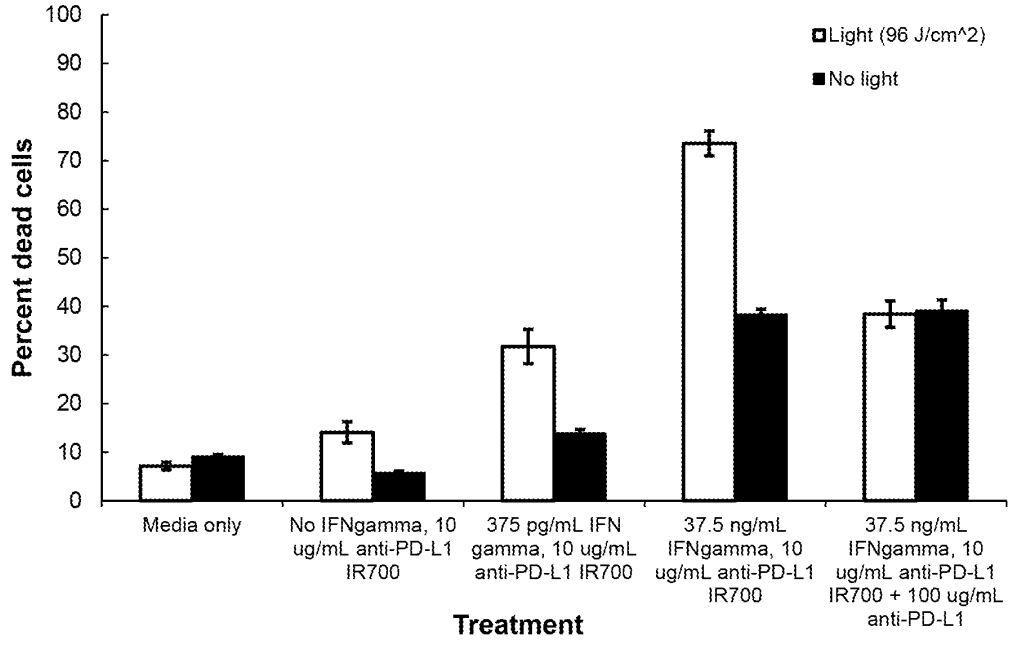

100
90
80
70
60
50
40
30
20
10
0
Percent dead cells
Light (96 J/cm^2)
No light
Media only
No IFNgamma, 10 ug/mL anti-PD-L1 IR700
375 pg/mL IFN gamma, 10 ug/mL anti-PD-L1 IR700
37.5 ng/mL IFNgamma, 10 ug/mL anti-PD-L1 IR700
37.5 ng/mL IFNgamma, 10 ug/mL anti-PD-L1 IR700 + 100 ug/mL anti-PD-L1
Treatment

FIG. 20A

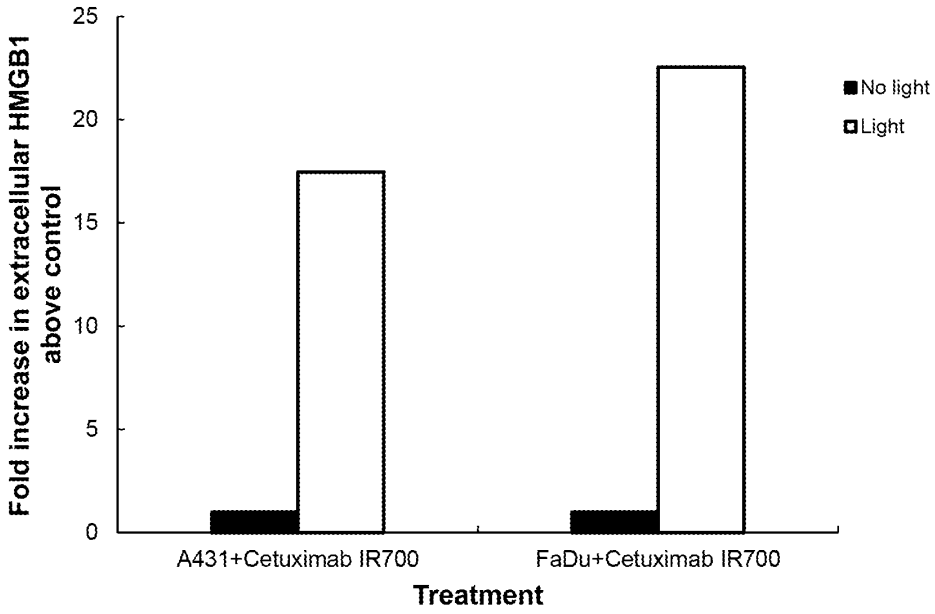


FIG. 20B

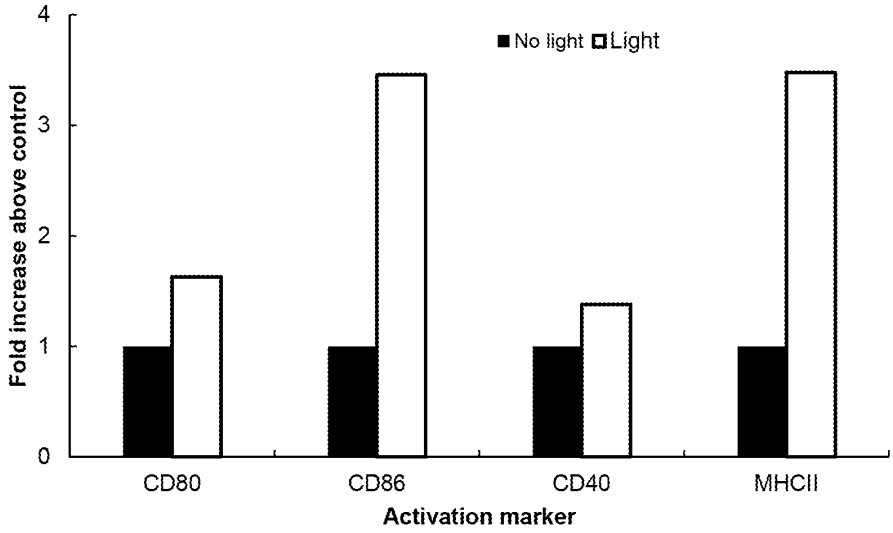


FIG. 20C

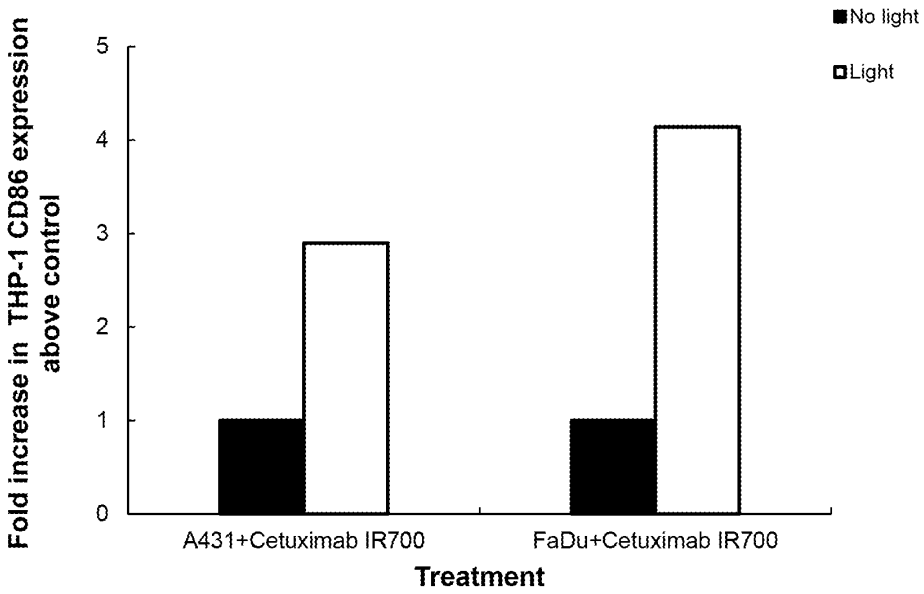

No light
Light
Fold increase in THP-1 CD86 expression above control
0
1
2
3
4
5
A431+Cetuximab IR700
FaDu+Cetuximab IR700
Treatment

FIG. 21

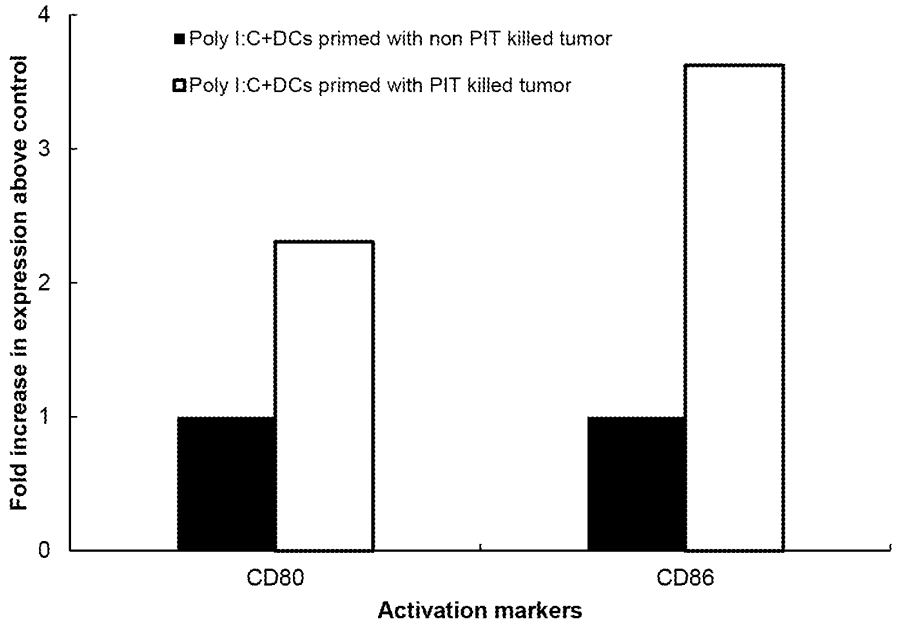
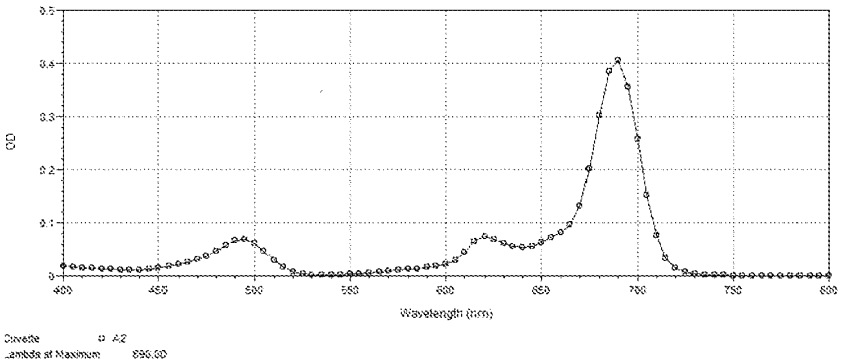
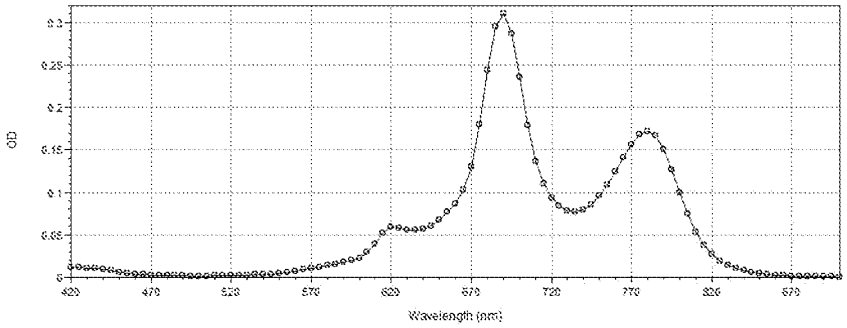

Poly I:C+DCs primed with non PIT killed tumor
Poly I:C+DCs primed with PIT killed tumor
Fold increase in expression above control
0
1
2
3
4
CD80
CD86
Activation markers

FIG. 22A



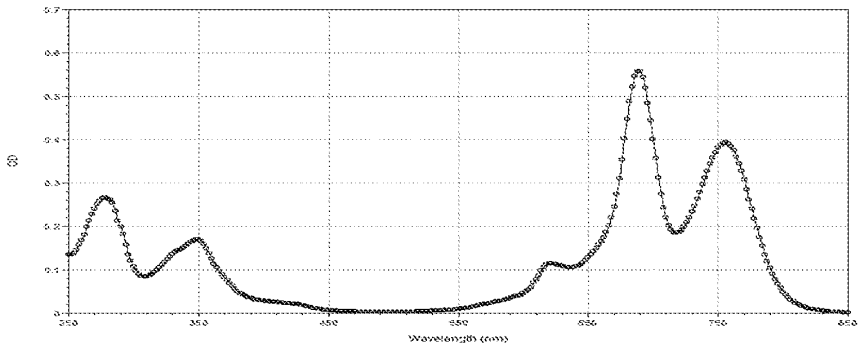
Cuvette A2
Lambda at Maximum 690.00

FIG. 22B



Cuvette A1
Lambda at Maximum 690.00

FIG. 22C



Cuvette A1
Lambda at Maximum 688.20

FIG. 23A

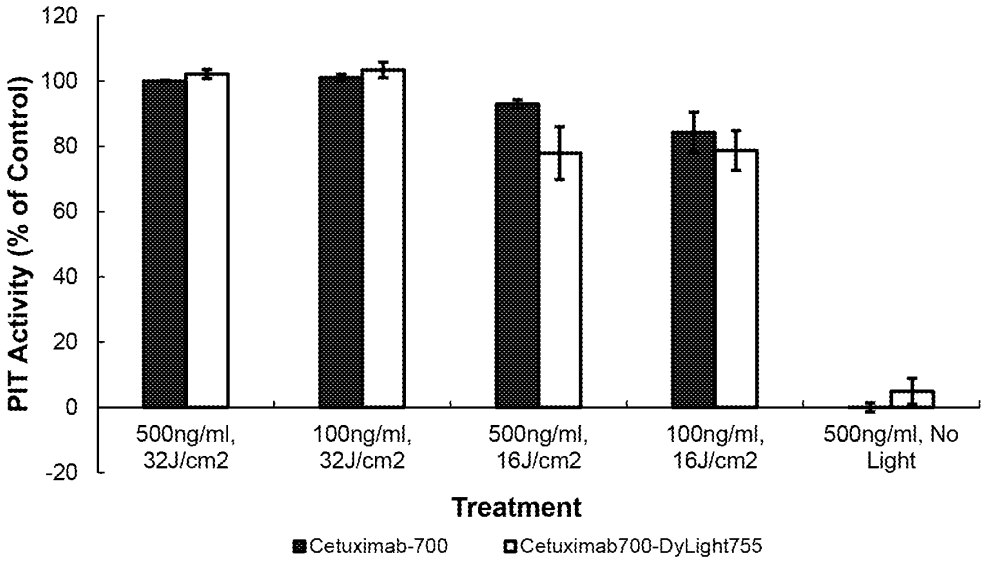


FIG. 23B

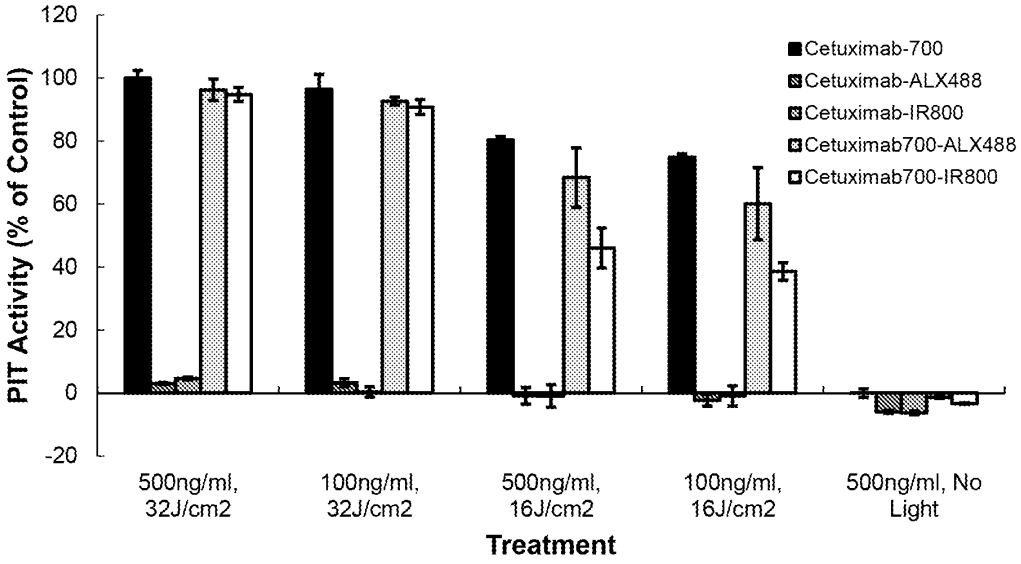


FIG. 24A

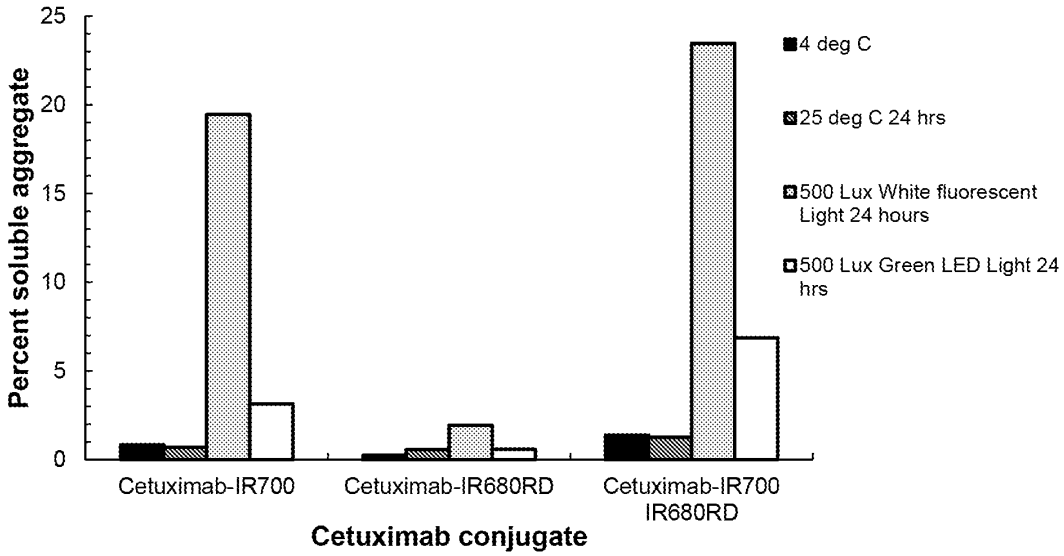


FIG. 24B

