Fig. 1

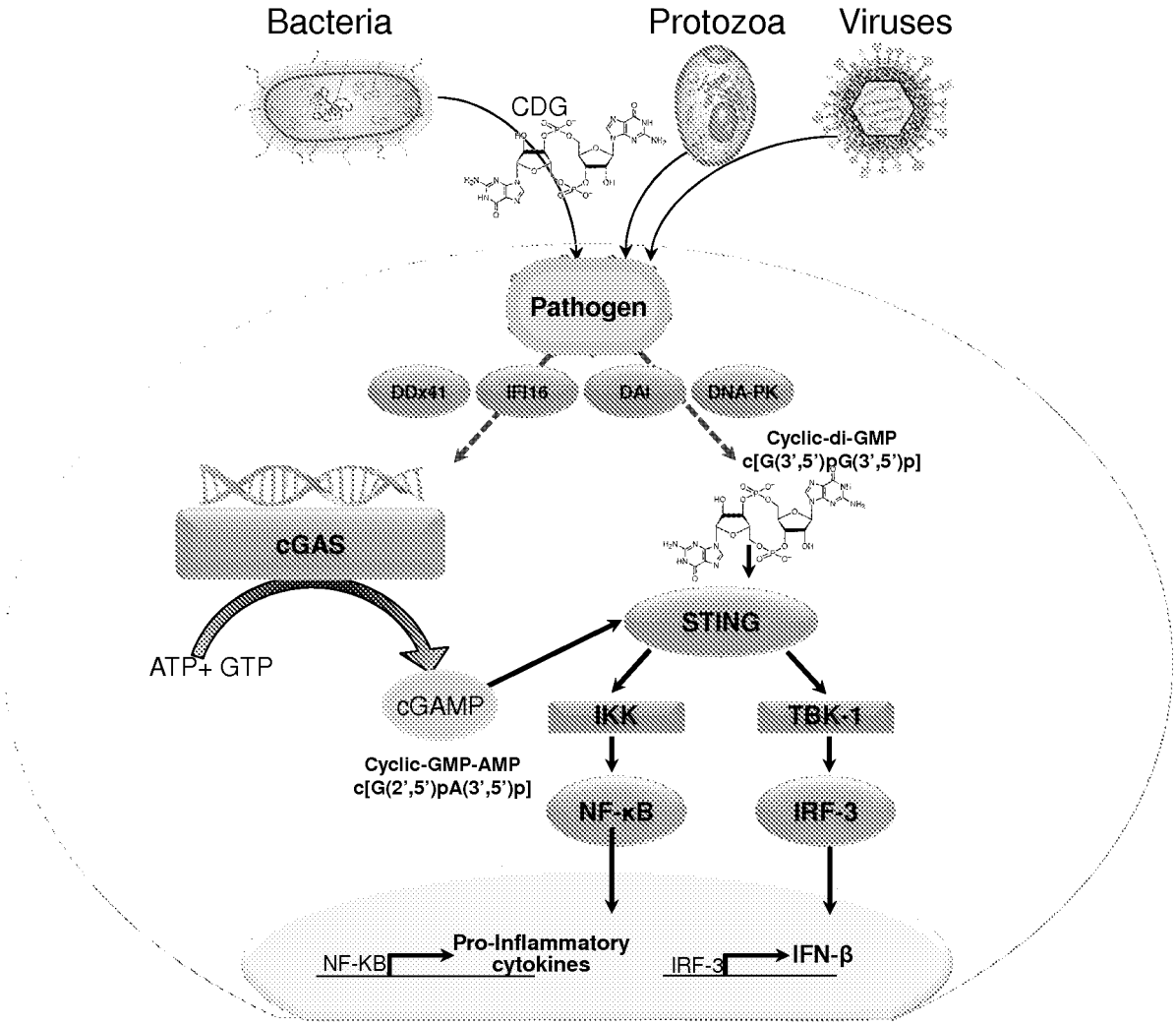

Bacteria
Protozoa
Viruses
CDG
Pathogen
DDx41
IFI16
DAI
DNA-PK
Cyclic-di-GMP
c[G(3',5')pG(3',5')p]
cGAS
ATP+ GTP
STING
cGAMP
IKK
TBK-1
Cyclic-GMP-AMP
c[G(2',5')pA(3',5')p]
NF-κB
IRF-3
NF-KB
Pro-Inflammatory cytokines
IRF-3
IFN-β

Fig. 2A

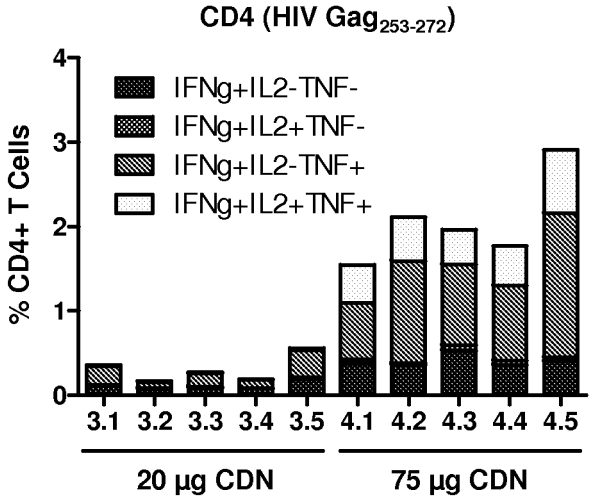

CD4 (HIV Gag253-272)
% CD4+ T Cells
IFNg+IL2-TNF-
IFNg+IL2+TNF-
IFNg+IL2-TNF+
IFNg+IL2+TNF+
0
1
2
3
4
3.1 3.2 3.3 3.4 3.5 4.1 4.2 4.3 4.4 4.5
20 µg CDN
75 µg CDN

Fig. 2B

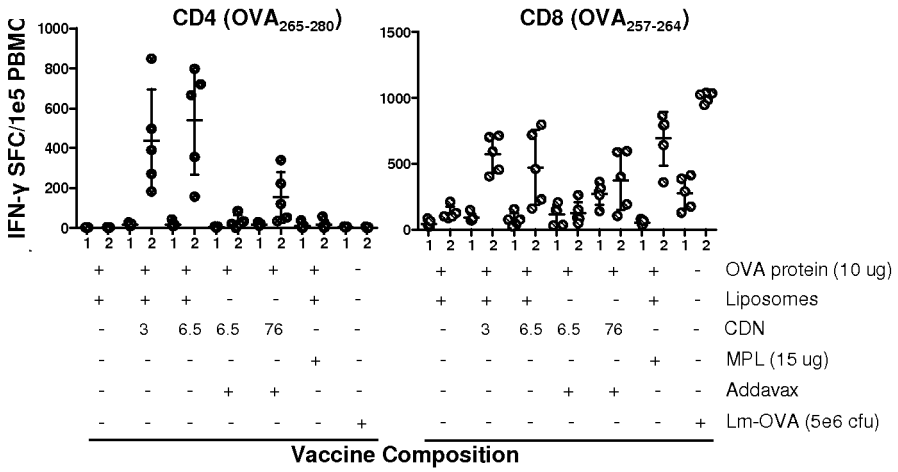

CD4 (OVA265-280)
CD8 (OVA257-264)
IFN-γ SFC/1e5 PBMC
1000
800
600
400
200
0
1500
1000
500
1 2 1 2 1 2 1 2 1 2 1 2 1 2
+ + + + + + - + + + + + + -
OVA protein (10 ug)
+ + + - - + - + + + - - + -
Liposomes
- 3 6.5 6.5 76 - - - 3 6.5 6.5 76 - -
CDN
- - - - - + - - - - - - + -
MPL (15 ug)
- - - + + - - - - - + + - -
Addavax
- - - - - - + - - - - - - +
Lm-OVA (5e6 cfu)
Vaccine Composition

Fig. 2C

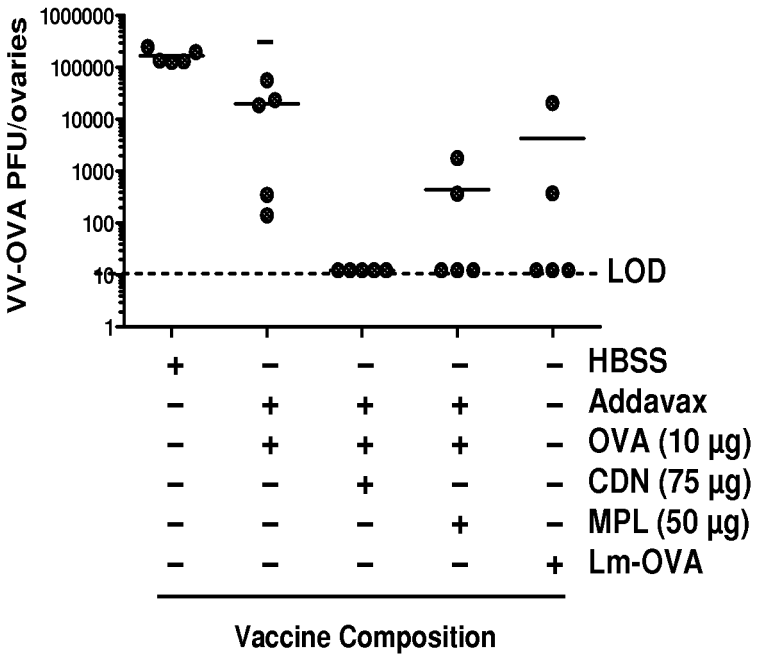

VV-OVA PFU/ovaries
1000000
100000
10000
1000
100
10
1
LOD
+ – – – – HBSS
– + + + – Addavax
– + + + – OVA (10 µg)
– – + – – CDN (75 µg)
– – – + – MPL (50 µg)
– – – – + Lm-OVA
Vaccine Composition

Fig. 3A

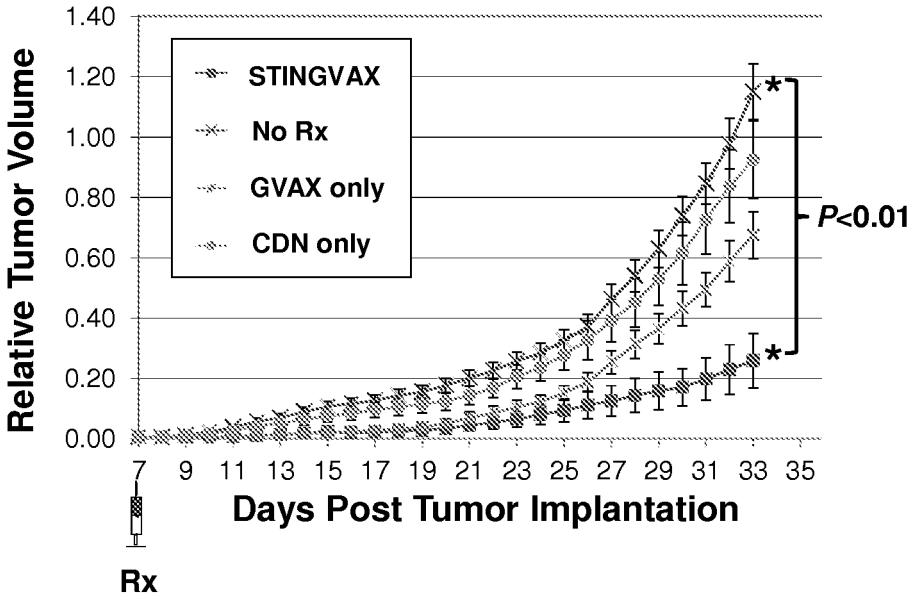

Relative Tumor Volume
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
STINGVAX
No Rx
GVAX only
CDN only
P<0.01
*
*
7 9 11 13 15 17 19 21 23 25 27 29 31 33 35
Days Post Tumor Implantation
Rx

Fig. 3B

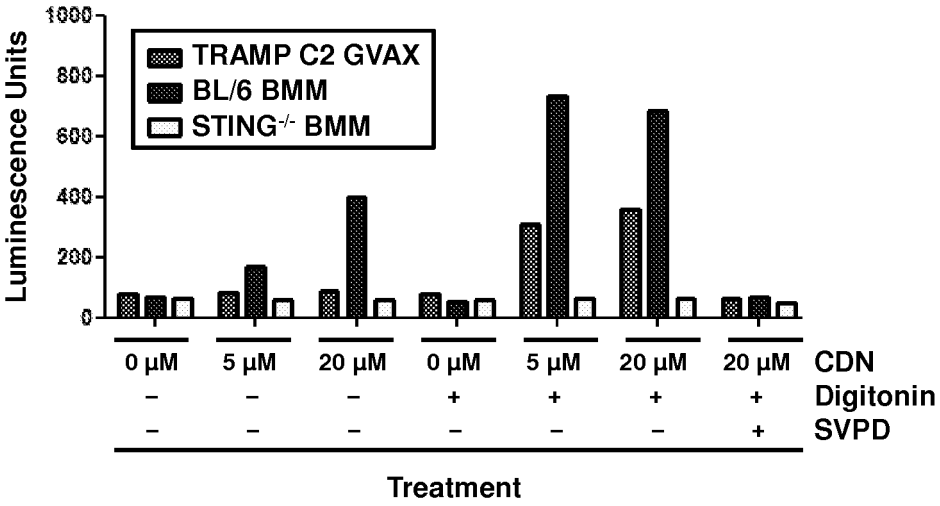

Luminescence Units
1000
800
600
400
200
0
TRAMP C2 GVAX
BL/6 BMM
STING-/- BMM
0 µM 5 µM 20 µM 0 µM 5 µM 20 µM 20 µM CDN
– – – + + + + Digitonin
– – – – – – + SVPD
Treatment

Fig. 4

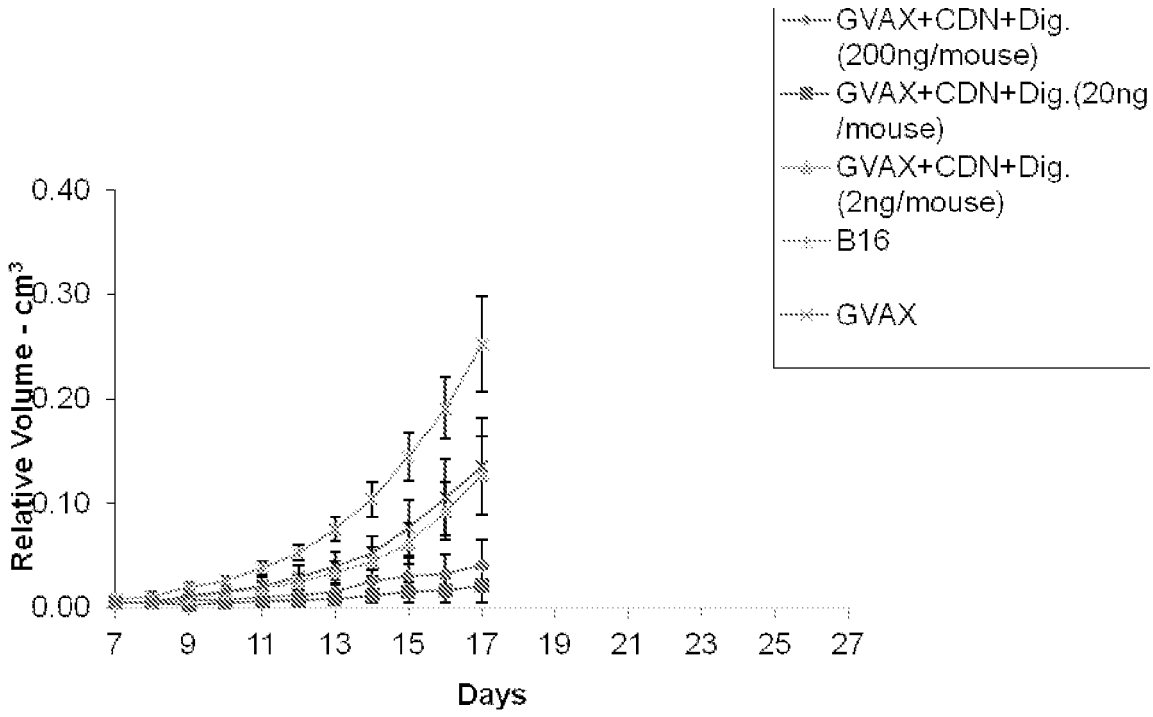
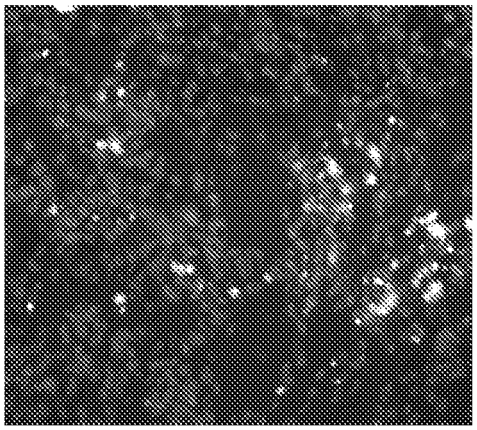
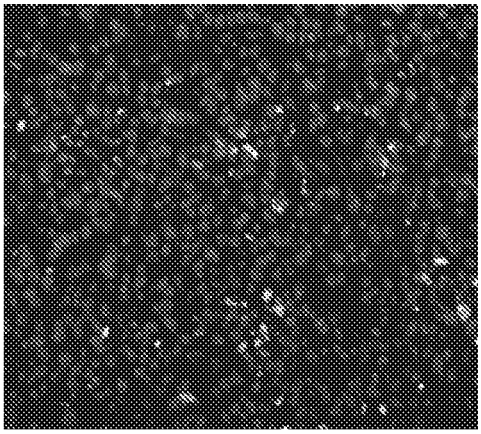

GVAX+CDN+Dig. (200ng/mouse)
GVAX+CDN+Dig.(20ng /mouse)
GVAX+CDN+Dig. (2ng/mouse)
B16
GVAX
Relative Volume - cm3
0.40
0.30
0.20
0.10
0.00
7
9
11
13
15
17
19
21
23
25
27
Days

FIG. 5

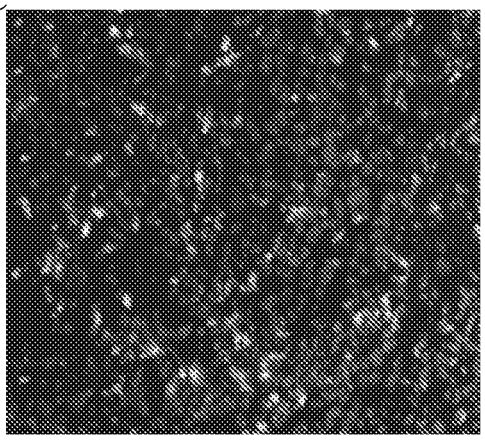
A



B



C



D

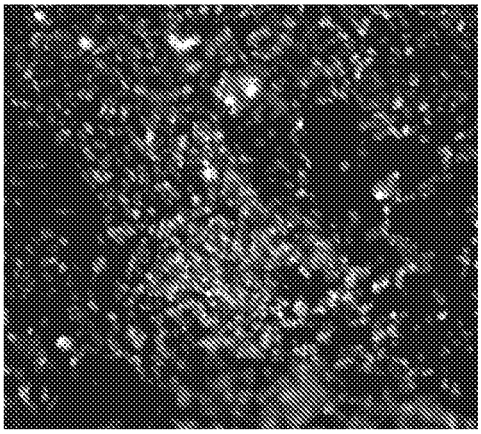


FIG. 6

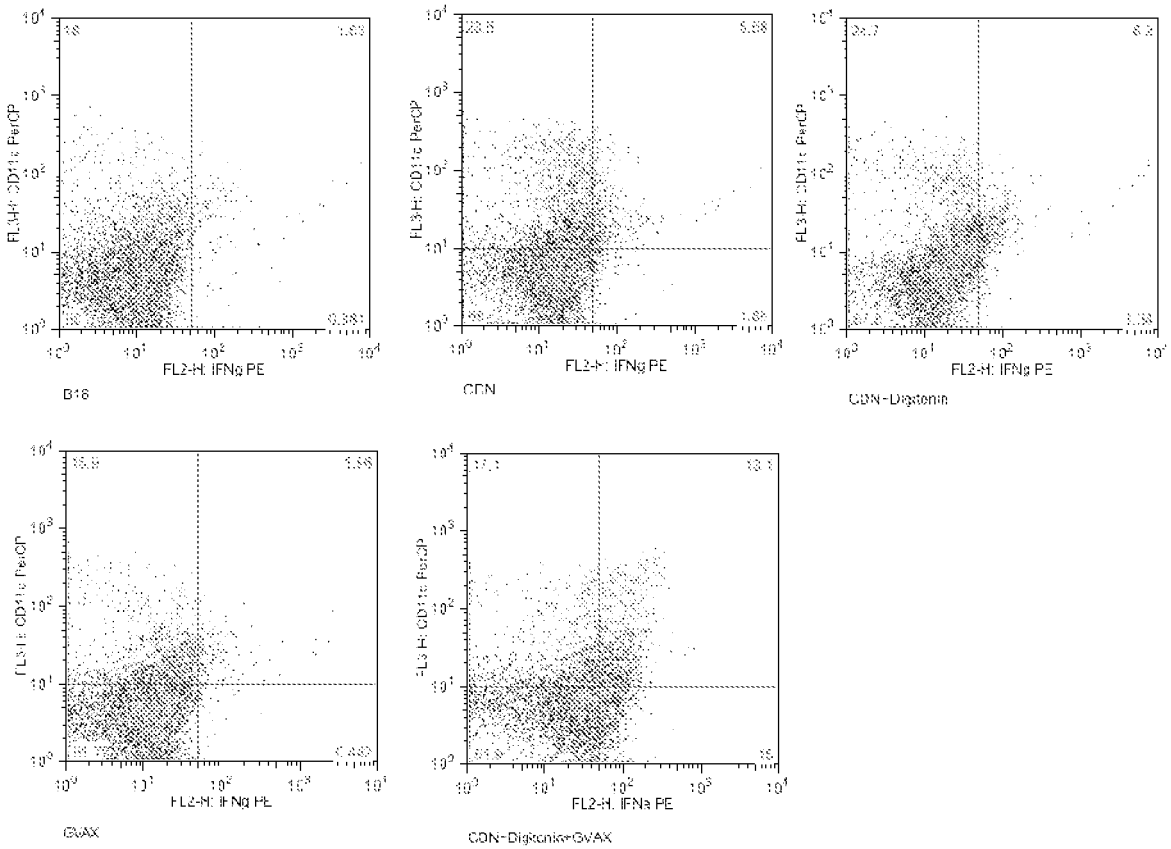

FL3-H: CD11c PerCP
FL2-H: IFNg PE
B16
CDN
CDN-Digitonin
GVAX
CDN-Digitonin+GVAX

FIG. 7

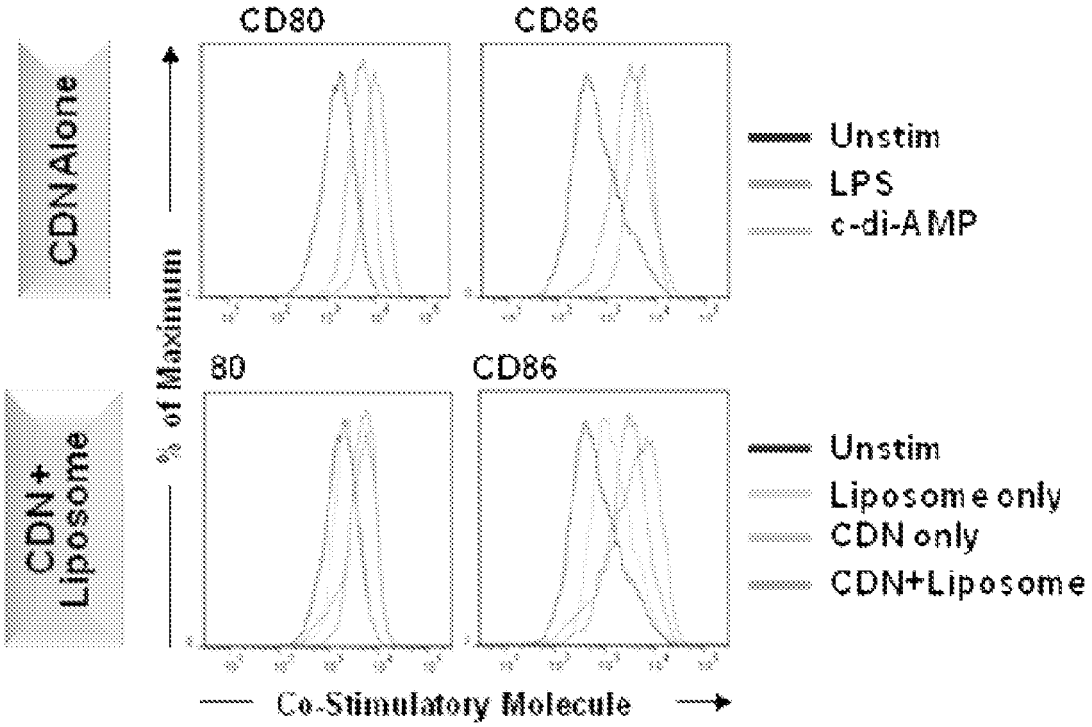

CD80
CD86
CDN Alone
% of Maximum
Unstim
LPS
c-di-AMP
80
CD86
CDN + Liposome
Unstim
Liposome only
CDN only
CDN+Liposome
Co-Stimulatory Molecule

FIG. 8

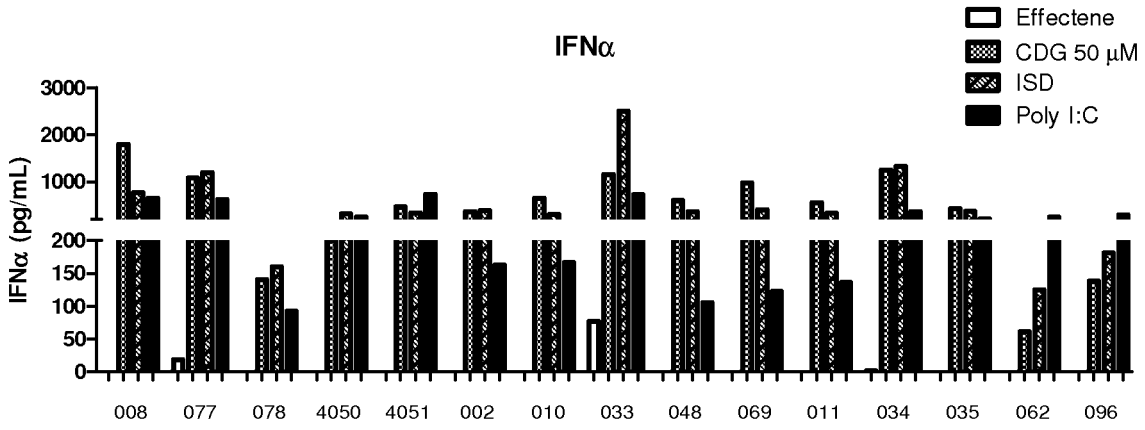
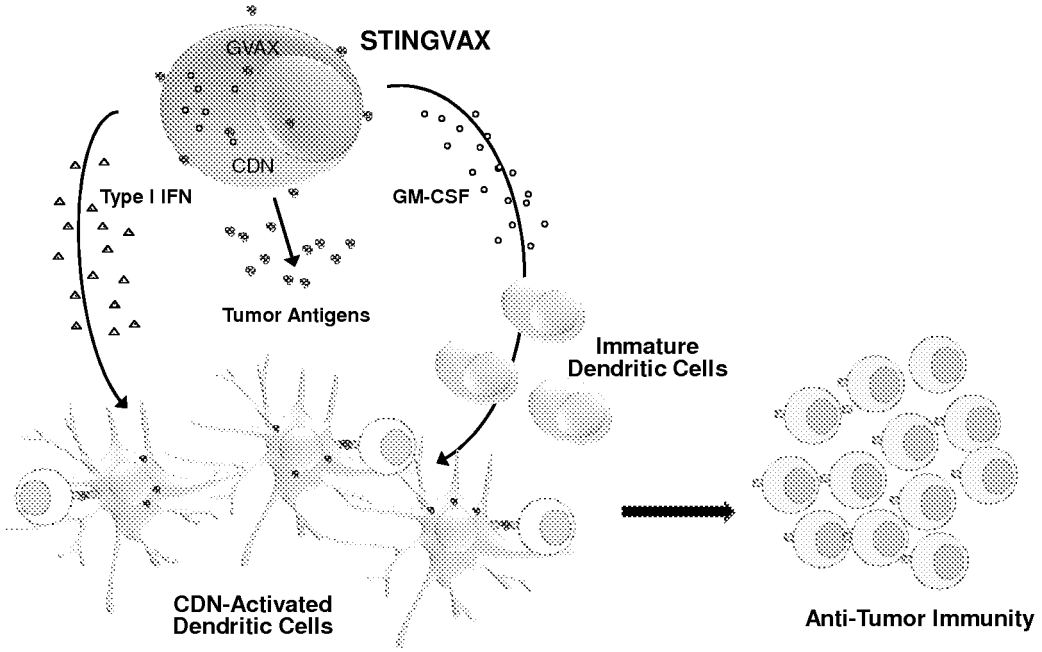

IFNα
Effectene
CDG 50 μM
ISD
Poly I:C
IFNα (pg/mL)
3000
2000
1000
200
150
100
50
0
008
077
078
4050
4051
002
010
033
048
069
011
034
035
062
096

FIG. 9


STINGVAX
GVAX
CDN
Type I IFN
GM-CSF
Tumor Antigens
Immature
Dendritic Cells
CDN-Activated
Dendritic Cells
Anti-Tumor Immunity