FIGURE 1.

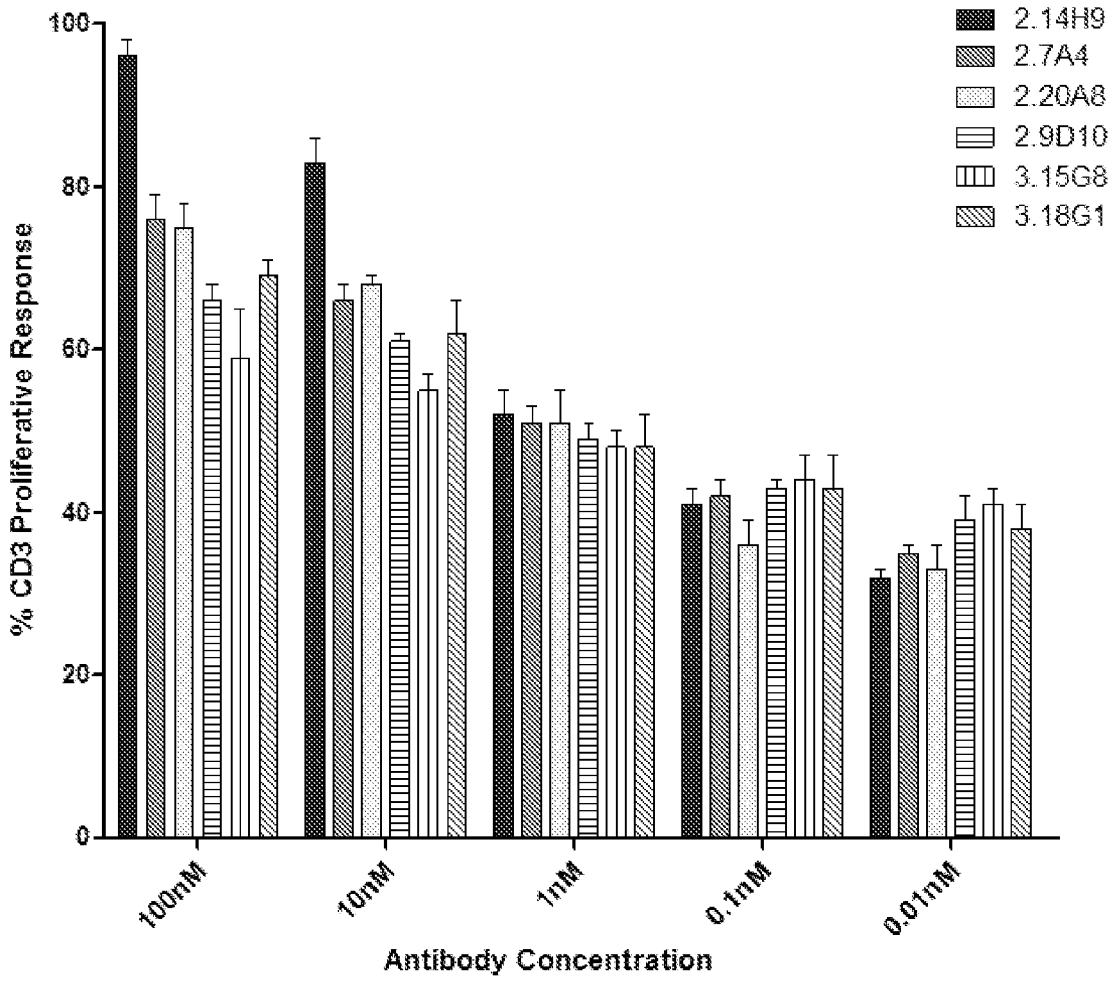

2.14H9
2.7A4
2.20A8
2.9D10
3.15G8
3.18G1
% CD3 Proliferative Response
100
80
60
40
20
0
100nM
10nM
1nM
0.1nM
0.01nM
Antibody Concentration

FIGURE 2

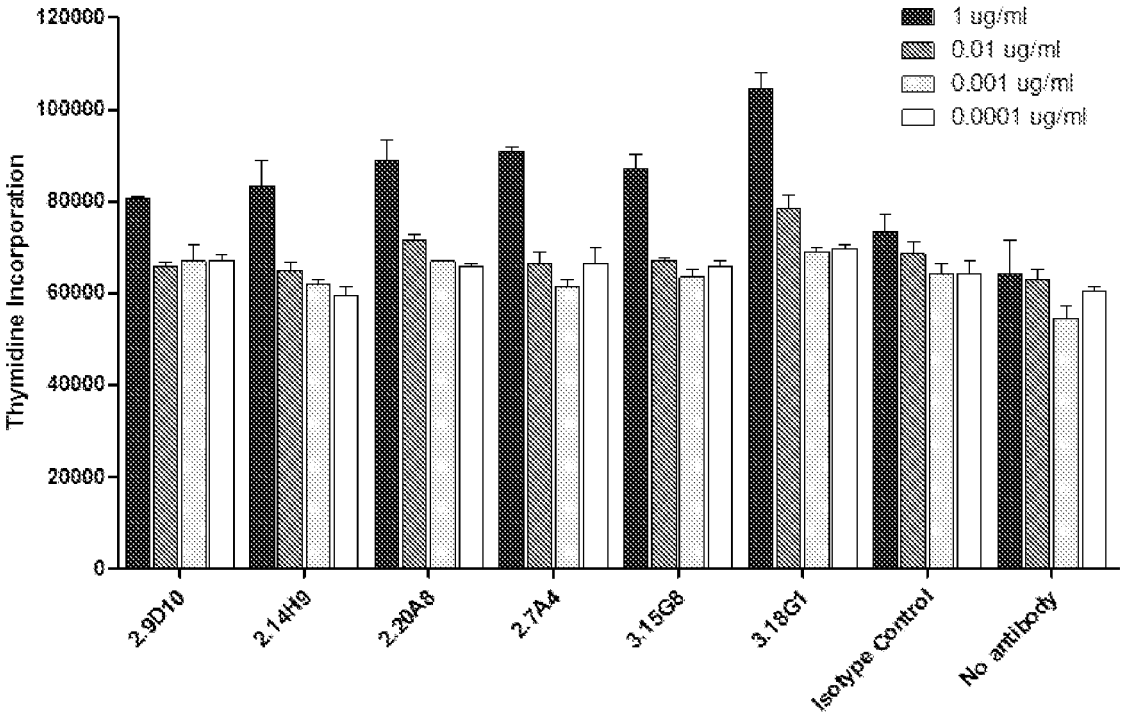

1 ug/ml
0.01 ug/ml
0.001 ug/ml
0.0001 ug/ml
Thymidine Incorporation
120000
100000
80000
60000
40000
20000
0
2.9D10
2.14H9
2.20A8
2.7A4
3.15G8
3.18G1
Isotype Control
No antibody

FIGURE 3

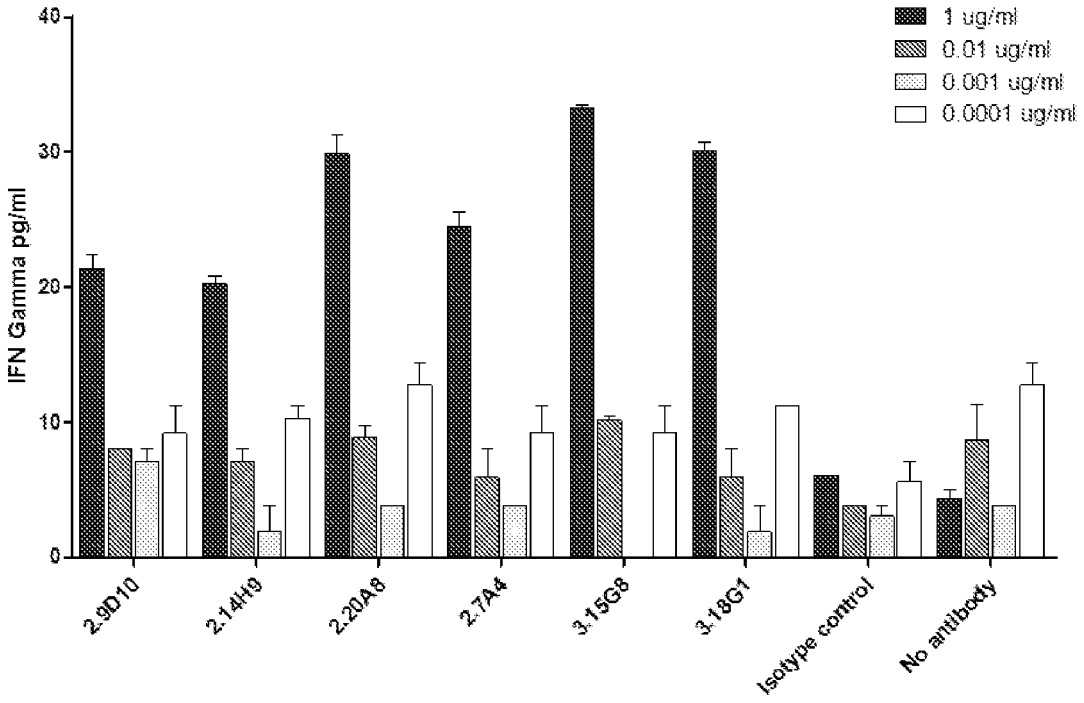

1 ug/ml
0.01 ug/ml
0.001 ug/ml
0.0001 ug/ml
IFN Gamma pg/ml
40
30
20
10
0
2.9D10
2.14H9
2.20A8
2.7A4
3.15G8
3.18G1
Isotype control
No antibody

FIGURE 4

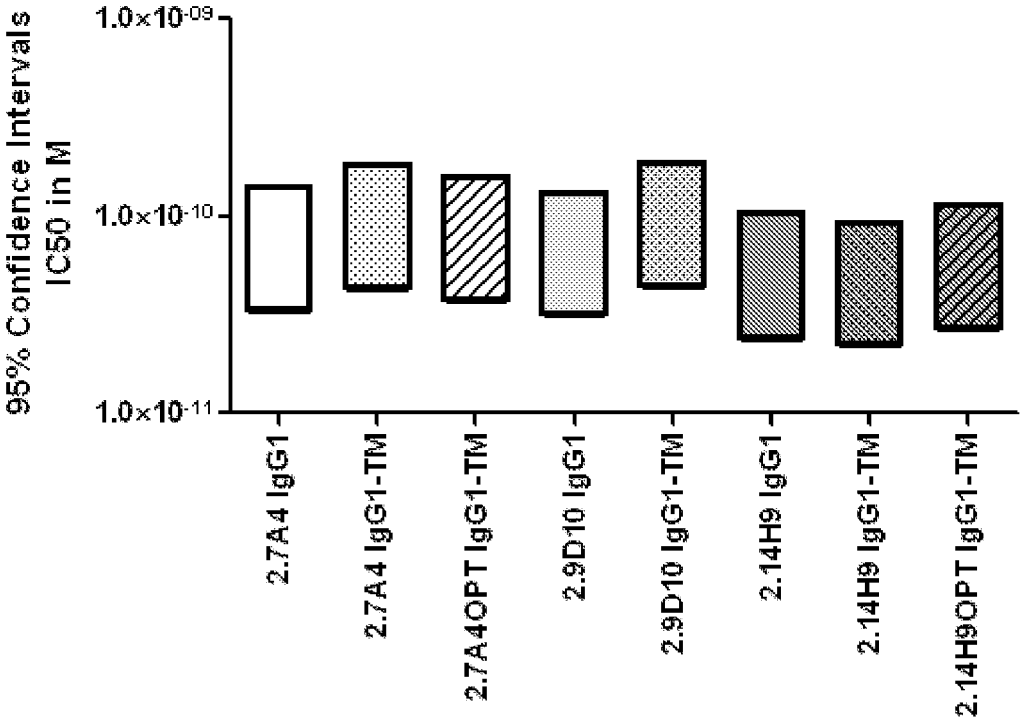

95% Confidence Intervals
IC50 in M
1.0×10-09
1.0×10-10
1.0×10-11
2.7A4 IgG1
2.7A4 IgG1-TM
2.7A4OPT IgG1-TM
2.9D10 IgG1
2.9D10 IgG1-TM
2.14H9 IgG1
2.14H9 IgG1-TM
2.14H9OPT IgG1-TM

FIGURE 5

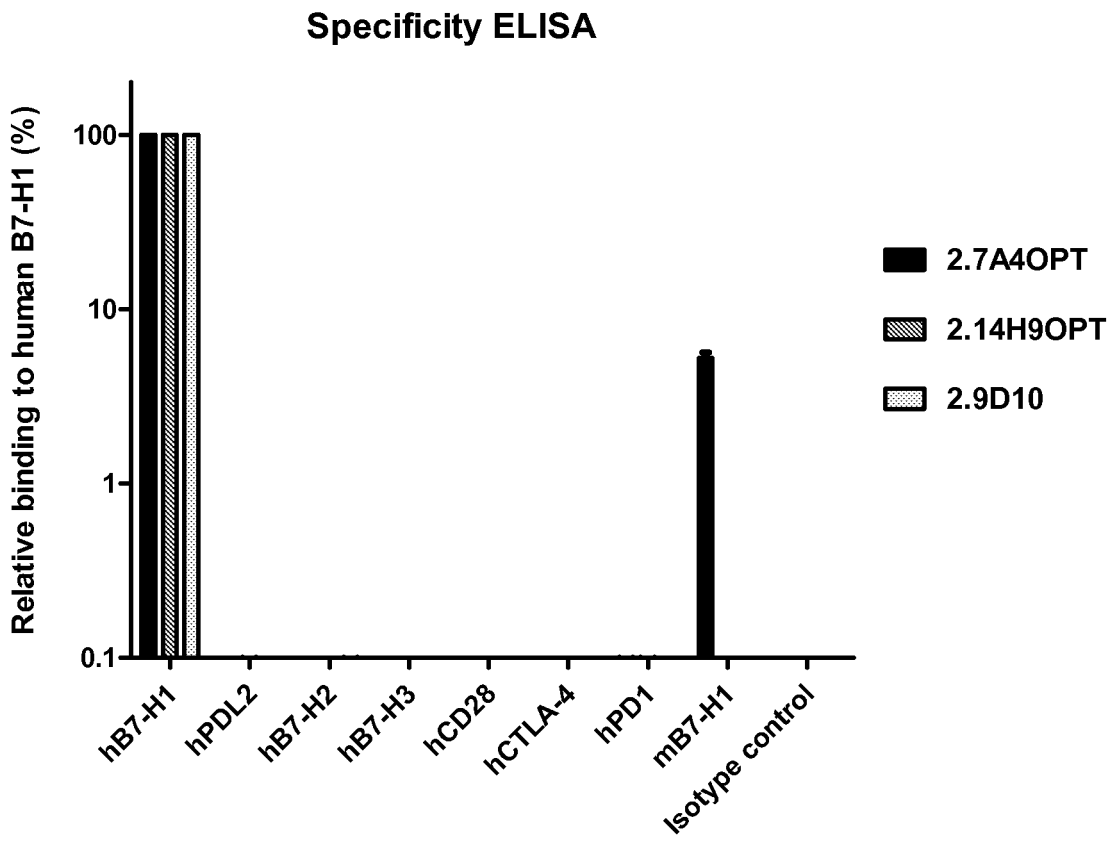

Specificity ELISA
Relative binding to human B7-H1 (%)
100
10
1
0.1
hB7-H1
hPDL2
hB7-H2
hB7-H3
hCD28
hCTLA-4
hPD1
mB7-H1
Isotype control
2.7A4OPT
2.14H9OPT
2.9D10

FIGURE 6

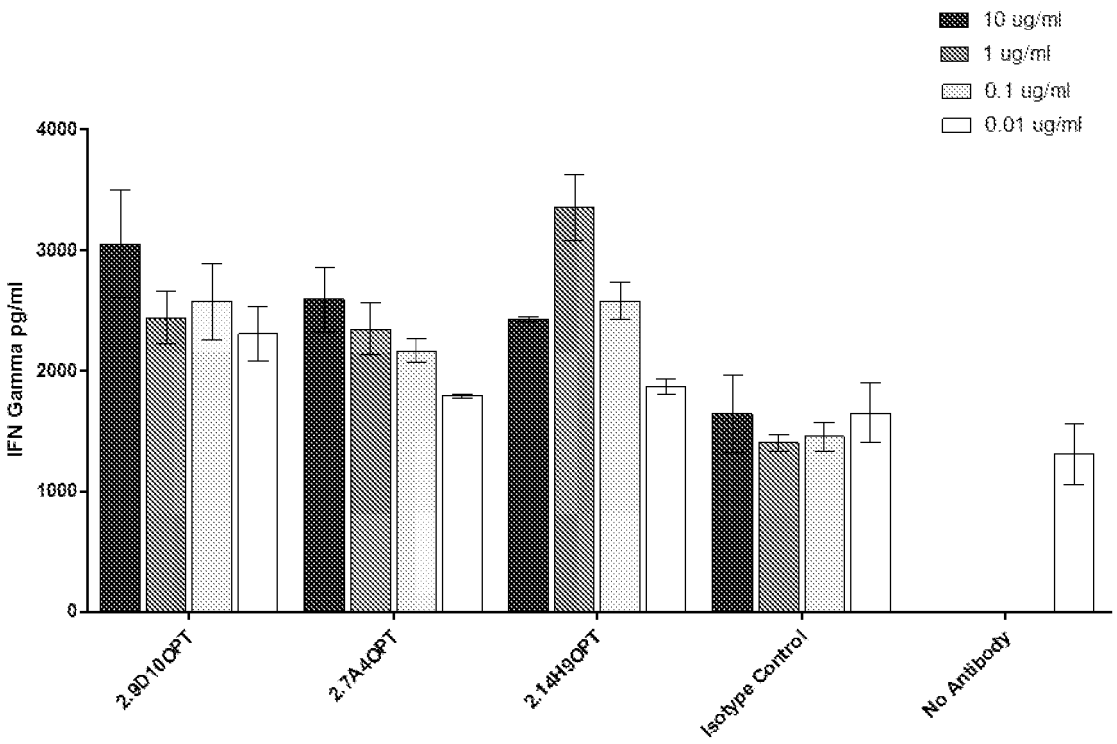

10 ug/ml
1 ug/ml
0.1 ug/ml
0.01 ug/ml
IFN Gamma pg/ml
4000
3000
2000
1000
0
2.9D10QPT
2.7A4QPT
2.14H3QPT
Isotype Control
No Antibody

FIGURE 7

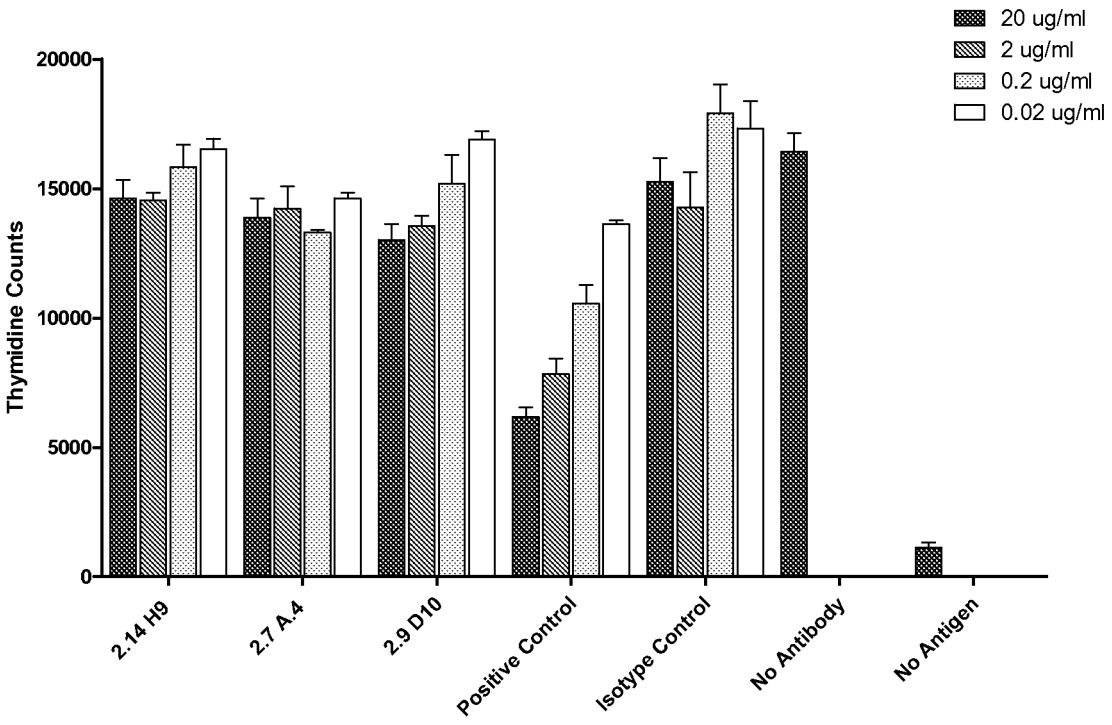

20 ug/ml
2 ug/ml
0.2 ug/ml
0.02 ug/ml
Thymidine Counts
20000
15000
10000
5000
0
2.14 H9
2.7 A.4
2.9 D10
Positive Control
Isotype Control
No Antibody
No Antigen

FIGURE 8

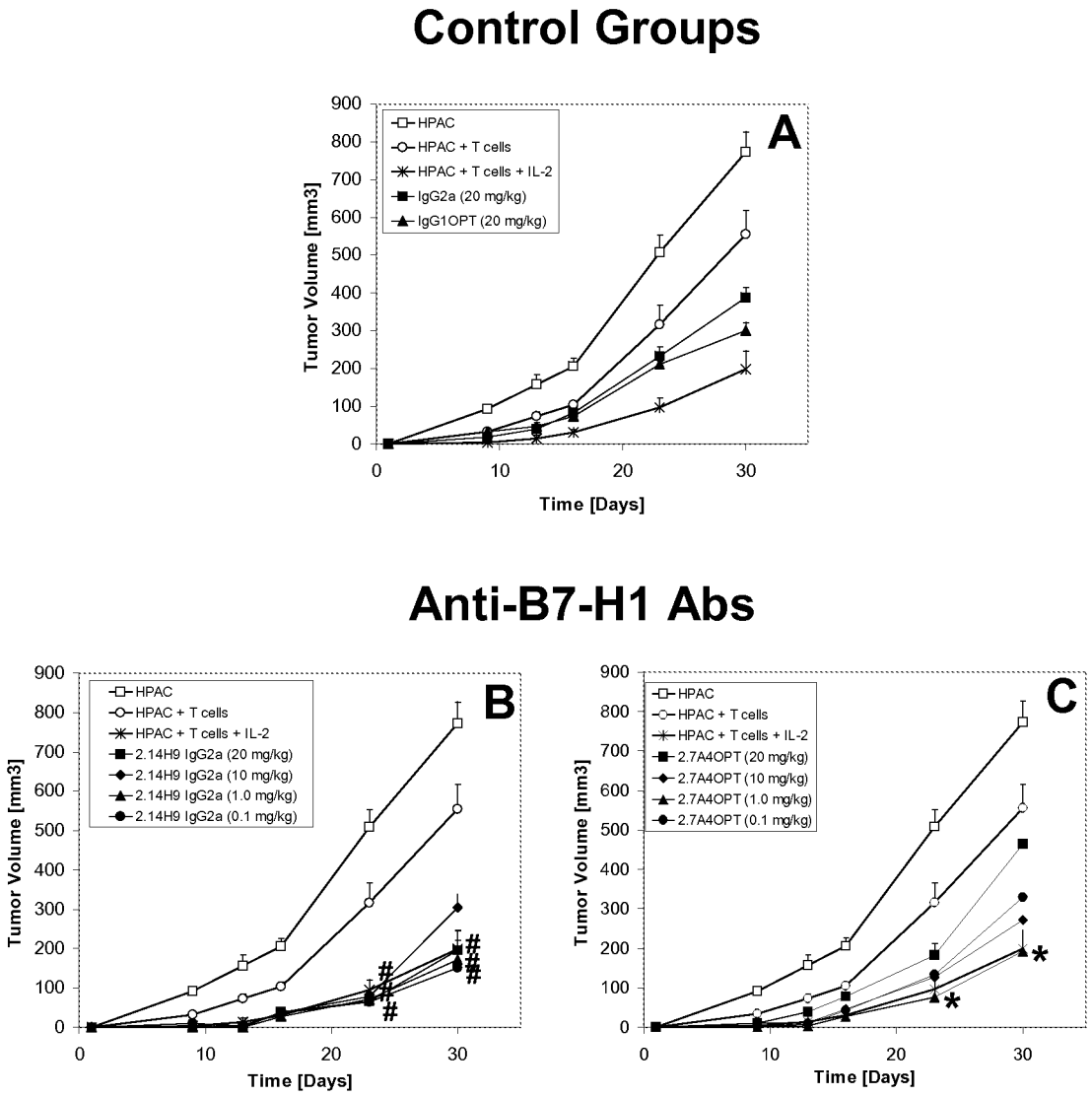

Control Groups
A
HPAC
HPAC + T cells
HPAC + T cells + IL-2
IgG2a (20 mg/kg)
IgG1OPT (20 mg/kg)
Tumor Volume [mm3]
Time [Days]
Anti-B7-H1 Abs
B
HPAC
HPAC + T cells
HPAC + T cells + IL-2
2.14H9 IgG2a (20 mg/kg)
2.14H9 IgG2a (10 mg/kg)
2.14H9 IgG2a (1.0 mg/kg)
2.14H9 IgG2a (0.1 mg/kg)
Tumor Volume [mm3]
Time [Days]
C
HPAC
HPAC + T cells
HPAC + T cells + IL-2
2.7A4OPT (20 mg/kg)
2.7A4OPT (10 mg/kg)
2.7A4OPT (1.0 mg/kg)
2.7A4OPT (0.1 mg/kg)
Tumor Volume [mm3]
Time [Days]

FIGURE 9

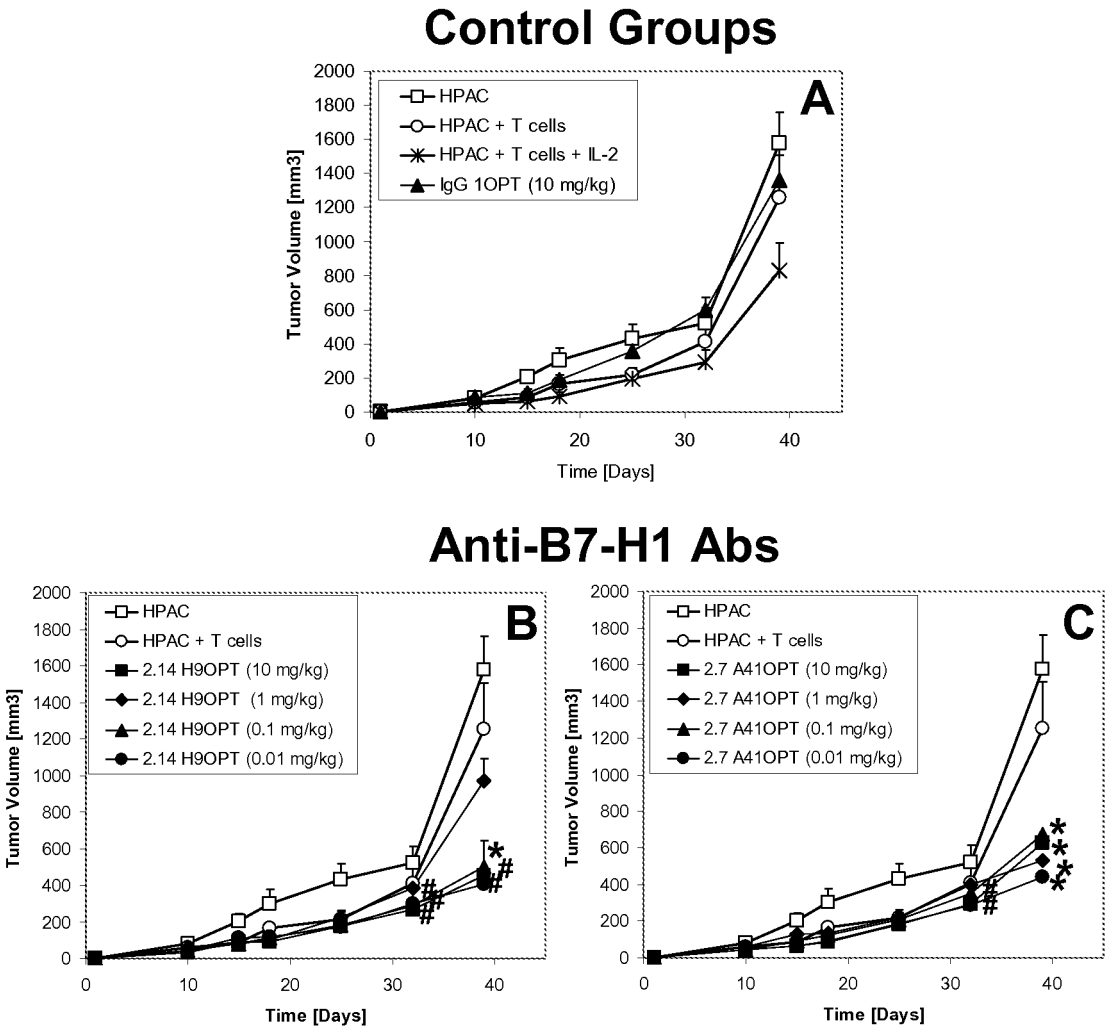

Control Groups
A
HPAC
HPAC + T cells
HPAC + T cells + IL-2
IgG 1OPT (10 mg/kg)
Tumor Volume [mm3]
Time [Days]
Anti-B7-H1 Abs
B
HPAC
HPAC + T cells
2.14 H9OPT (10 mg/kg)
2.14 H9OPT (1 mg/kg)
2.14 H9OPT (0.1 mg/kg)
2.14 H9OPT (0.01 mg/kg)
Tumor Volume [mm3]
Time [Days]
C
HPAC
HPAC + T cells
2.7 A41OPT (10 mg/kg)
2.7 A41OPT (1 mg/kg)
2.7 A41OPT (0.1 mg/kg)
2.7 A41OPT (0.01 mg/kg)
Tumor Volume [mm3]
Time [Days]

FIGURE 10

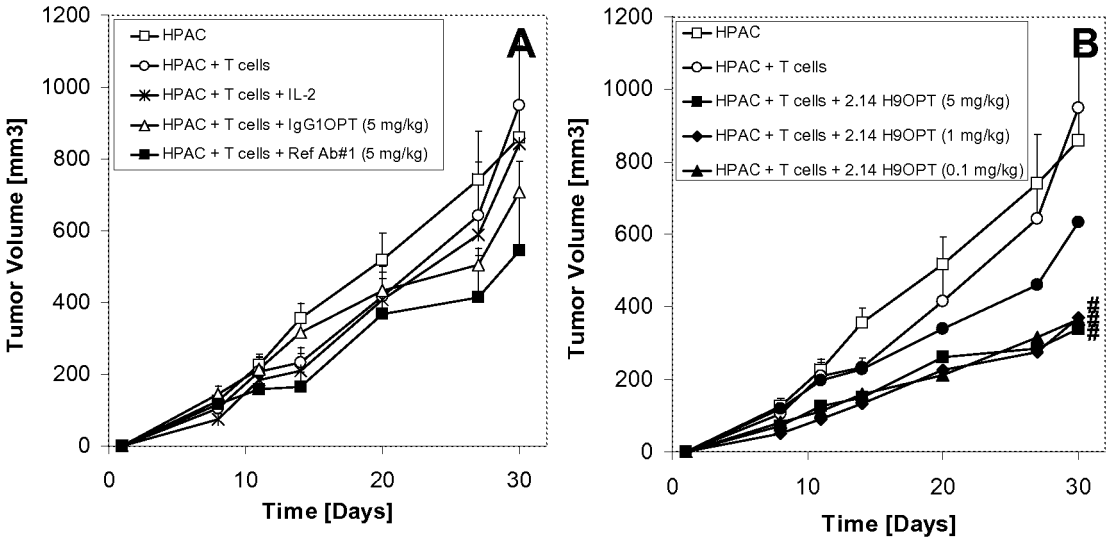

A
HPAC
HPAC + T cells
HPAC + T cells + IL-2
HPAC + T cells + IgG1OPT (5 mg/kg)
HPAC + T cells + Ref Ab#1 (5 mg/kg)
Tumor Volume [mm3]
Time [Days]
B
HPAC
HPAC + T cells
HPAC + T cells + 2.14 H9OPT (5 mg/kg)
HPAC + T cells + 2.14 H9OPT (1 mg/kg)
HPAC + T cells + 2.14 H9OPT (0.1 mg/kg)
Tumor Volume [mm3]
Time [Days]

FIGURE 11

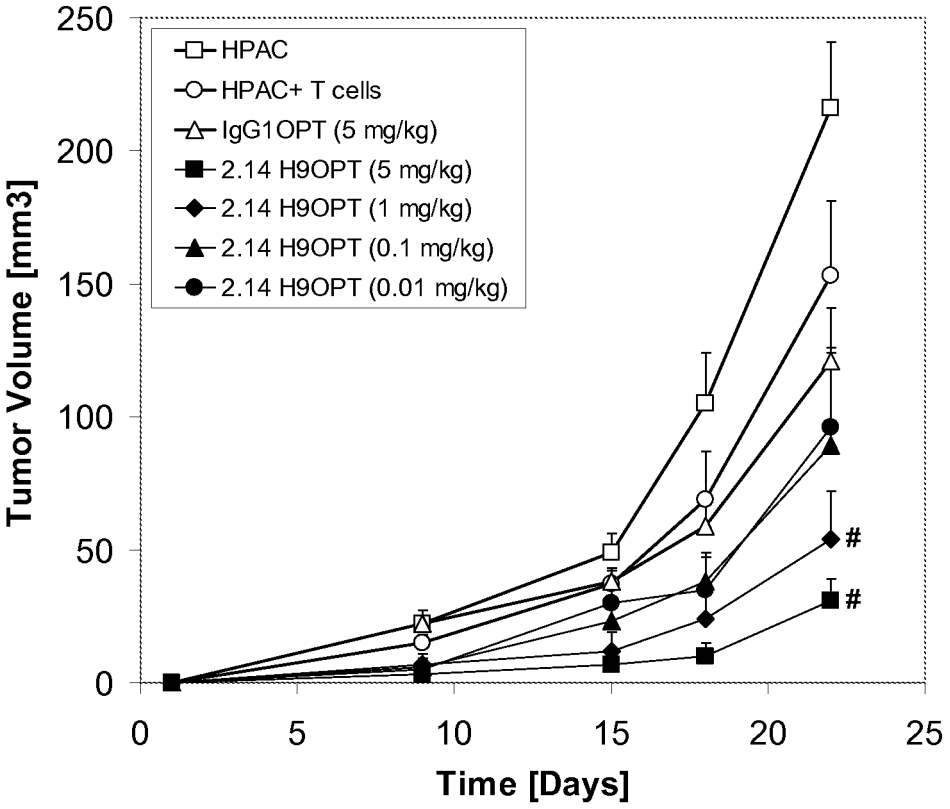

HPAC
HPAC+ T cells
IgG1OPT (5 mg/kg)
2.14 H9OPT (5 mg/kg)
2.14 H9OPT (1 mg/kg)
2.14 H9OPT (0.1 mg/kg)
2.14 H9OPT (0.01 mg/kg)
Tumor Volume [mm3]
Time [Days]
0
50
100
150
200
250
0
5
10
15
20
25
#
#

FIGURE 12

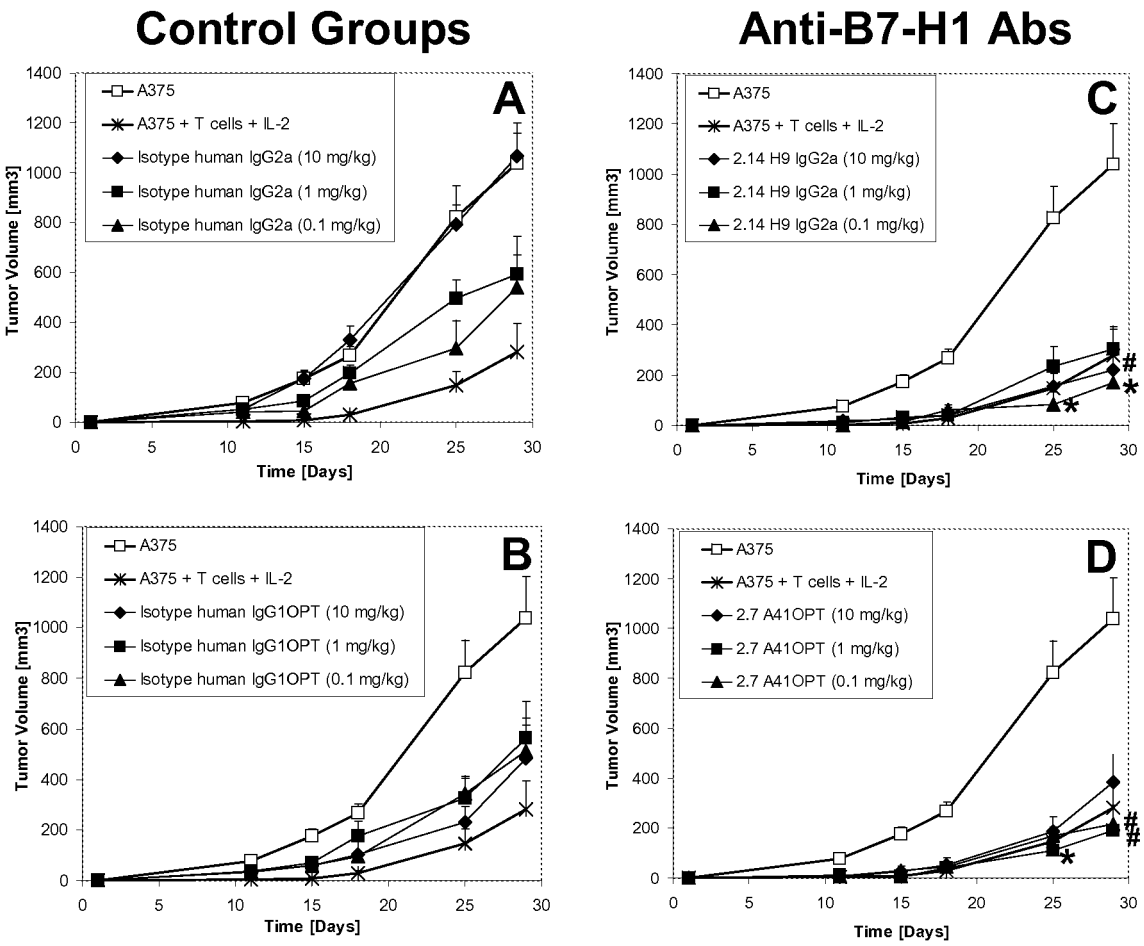

Control Groups
Anti-B7-H1 Abs
A
B
C
D
A375
A375 + T cells + IL-2
Isotype human IgG2a (10 mg/kg)
Isotype human IgG2a (1 mg/kg)
Isotype human IgG2a (0.1 mg/kg)
Isotype human IgG1OPT (10 mg/kg)
Isotype human IgG1OPT (1 mg/kg)
Isotype human IgG1OPT (0.1 mg/kg)
2.14 H9 IgG2a (10 mg/kg)
2.14 H9 IgG2a (1 mg/kg)
2.14 H9 IgG2a (0.1 mg/kg)
2.7 A41OPT (10 mg/kg)
2.7 A41OPT (1 mg/kg)
2.7 A41OPT (0.1 mg/kg)
Tumor Volume [mm3]
Time [Days]
0
200
400
600
800
1000
1200
1400
0
5
10
15
20
25
30
*
#

FIGURE 13

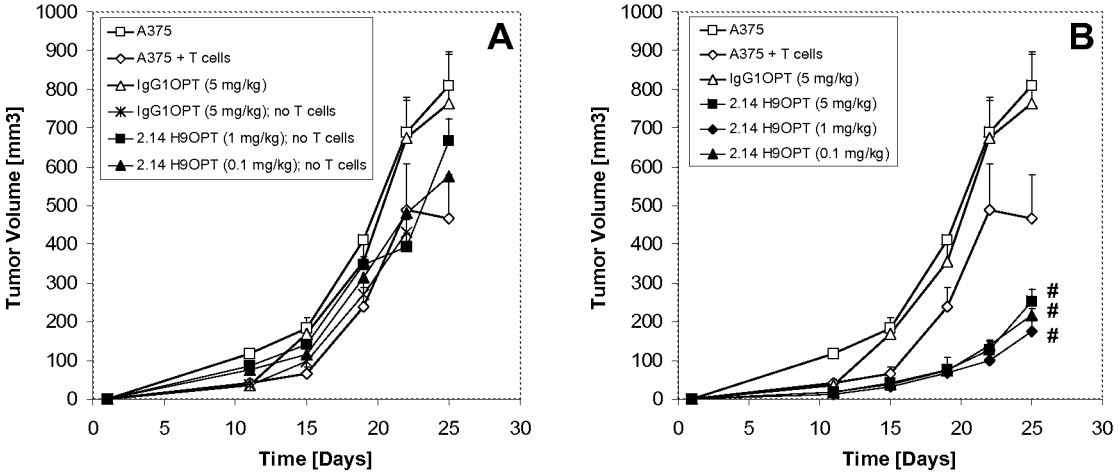

A
A375
A375 + T cells
IgG1OPT (5 mg/kg)
IgG1OPT (5 mg/kg); no T cells
2.14 H9OPT (1 mg/kg); no T cells
2.14 H9OPT (0.1 mg/kg); no T cells
Tumor Volume [mm3]
Time [Days]
B
A375
A375 + T cells
IgG1OPT (5 mg/kg)
2.14 H9OPT (5 mg/kg)
2.14 H9OPT (1 mg/kg)
2.14 H9OPT (0.1 mg/kg)
Tumor Volume [mm3]
Time [Days]
#
#
#

FIGURE 14

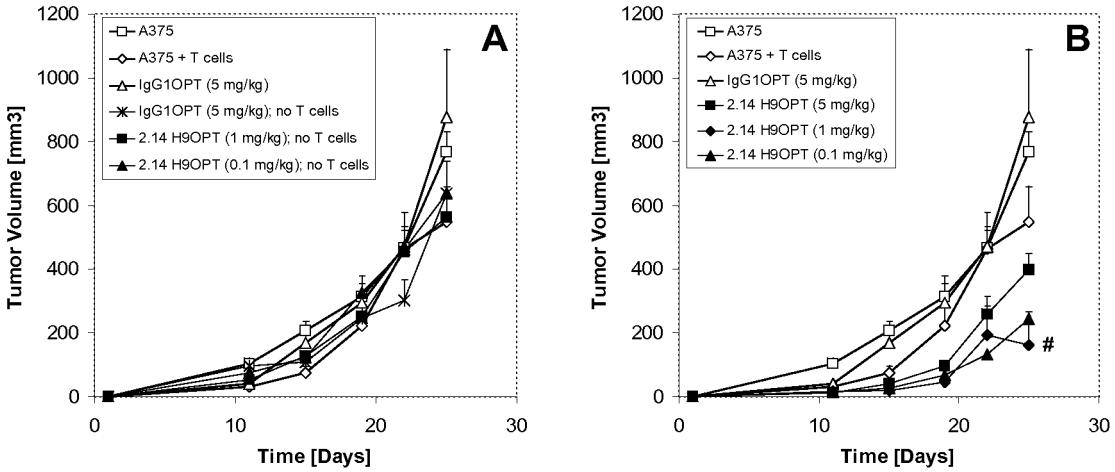
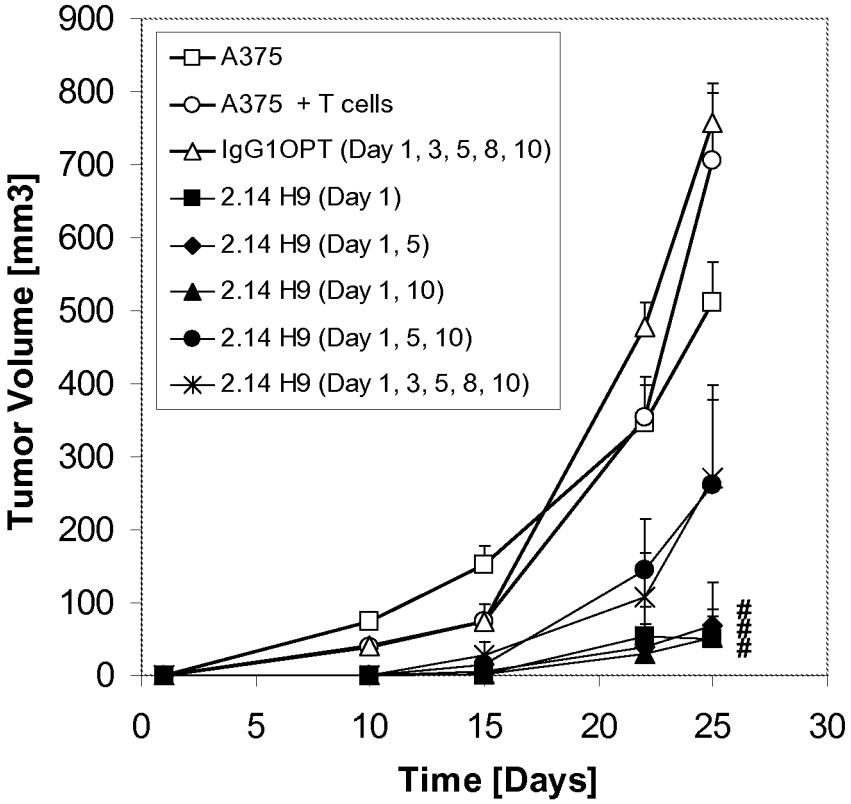

A
A375
A375 + T cells
IgG1OPT (5 mg/kg)
IgG1OPT (5 mg/kg); no T cells
2.14 H9OPT (1 mg/kg); no T cells
2.14 H9OPT (0.1 mg/kg); no T cells
Tumor Volume [mm3]
Time [Days]
0
200
400
600
800
1000
1200
0
10
20
30
B
A375
A375 + T cells
IgG1OPT (5 mg/kg)
2.14 H9OPT (5 mg/kg)
2.14 H9OPT (1 mg/kg)
2.14 H9OPT (0.1 mg/kg)
Tumor Volume [mm3]
Time [Days]
#

FIGURE 15


900
800
700
600
500
400
300
200
100
0
Tumor Volume [mm3]
0
5
10
15
20
25
30
Time [Days]
A375
A375 + T cells
IgG1OPT (Day 1, 3, 5, 8, 10)
2.14 H9 (Day 1)
2.14 H9 (Day 1, 5)
2.14 H9 (Day 1, 10)
2.14 H9 (Day 1, 5, 10)
2.14 H9 (Day 1, 3, 5, 8, 10)
#
#
#