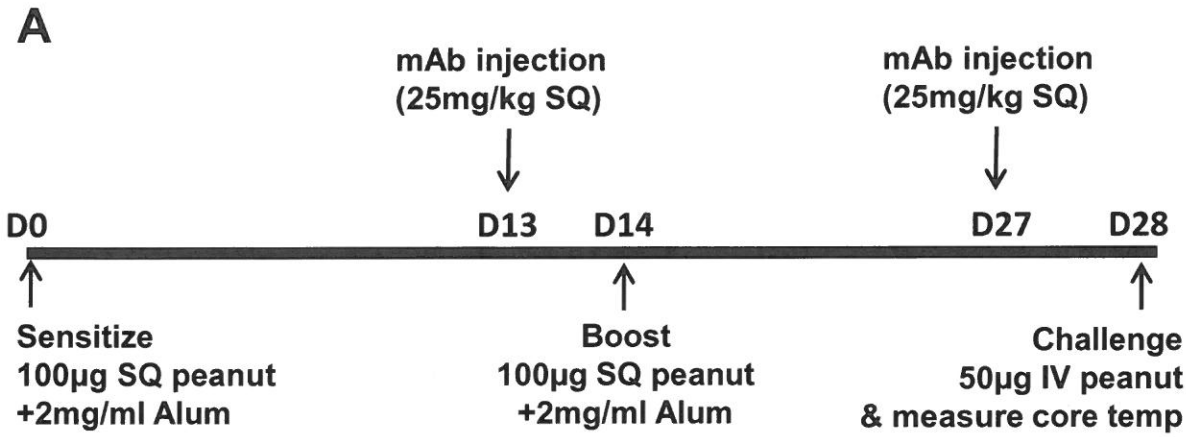
Peanut Allergy Mouse Model

(two dose administration)



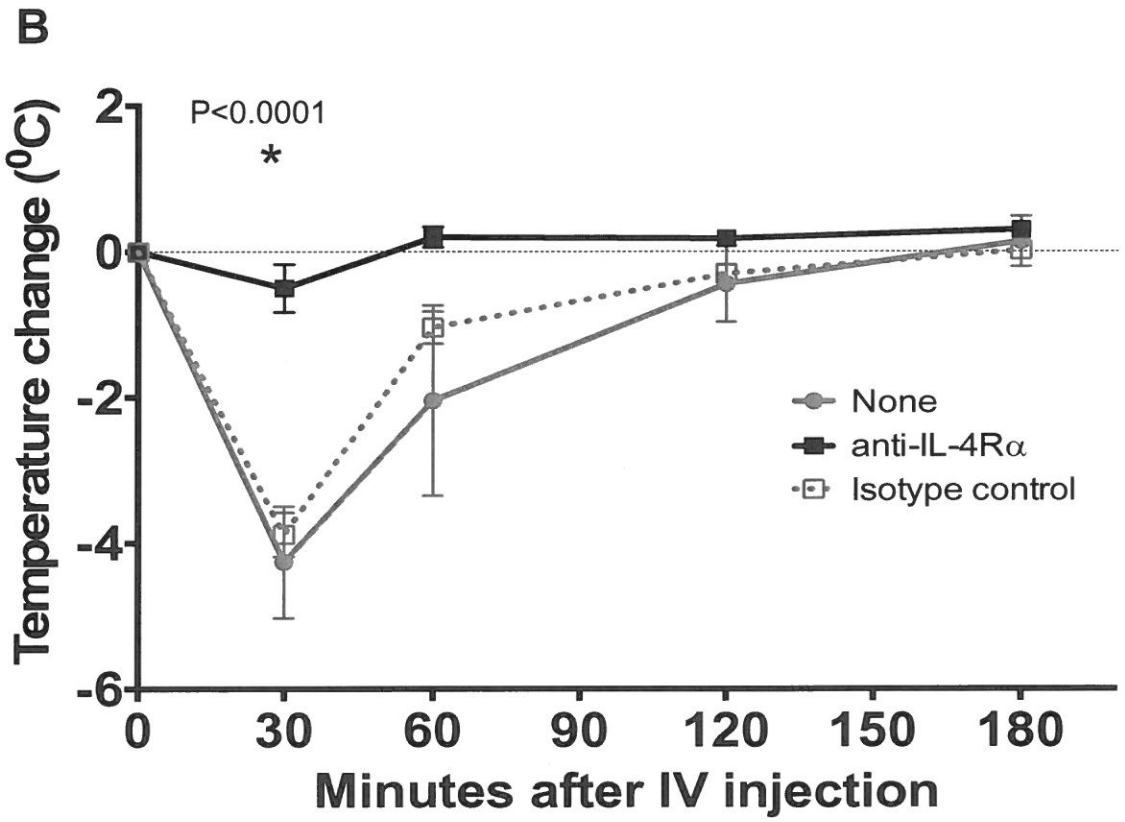
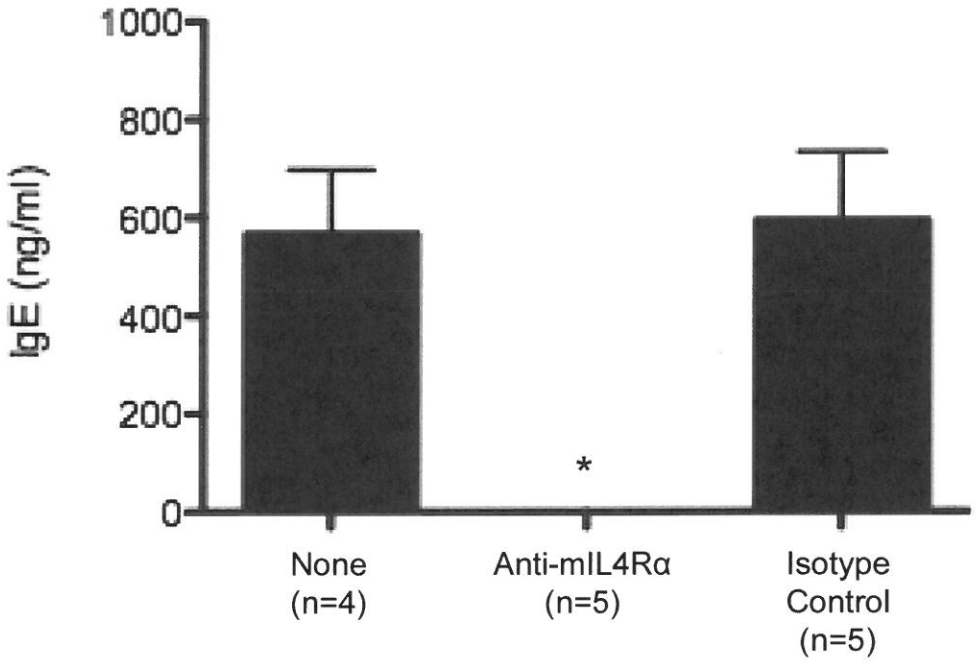


Figure 1

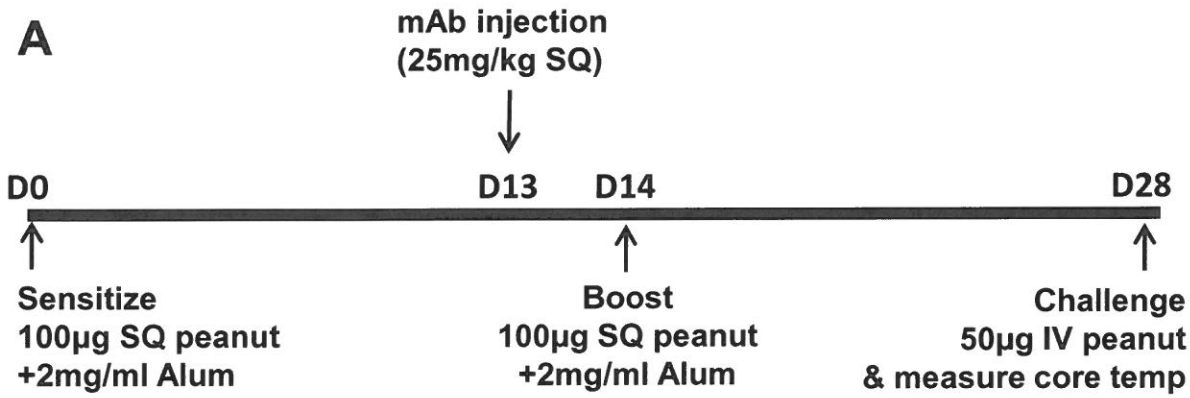


*p<0.05 compared to isotype control

Figure 2

Peanut Allergy Mouse Model

(single administration on Day13)



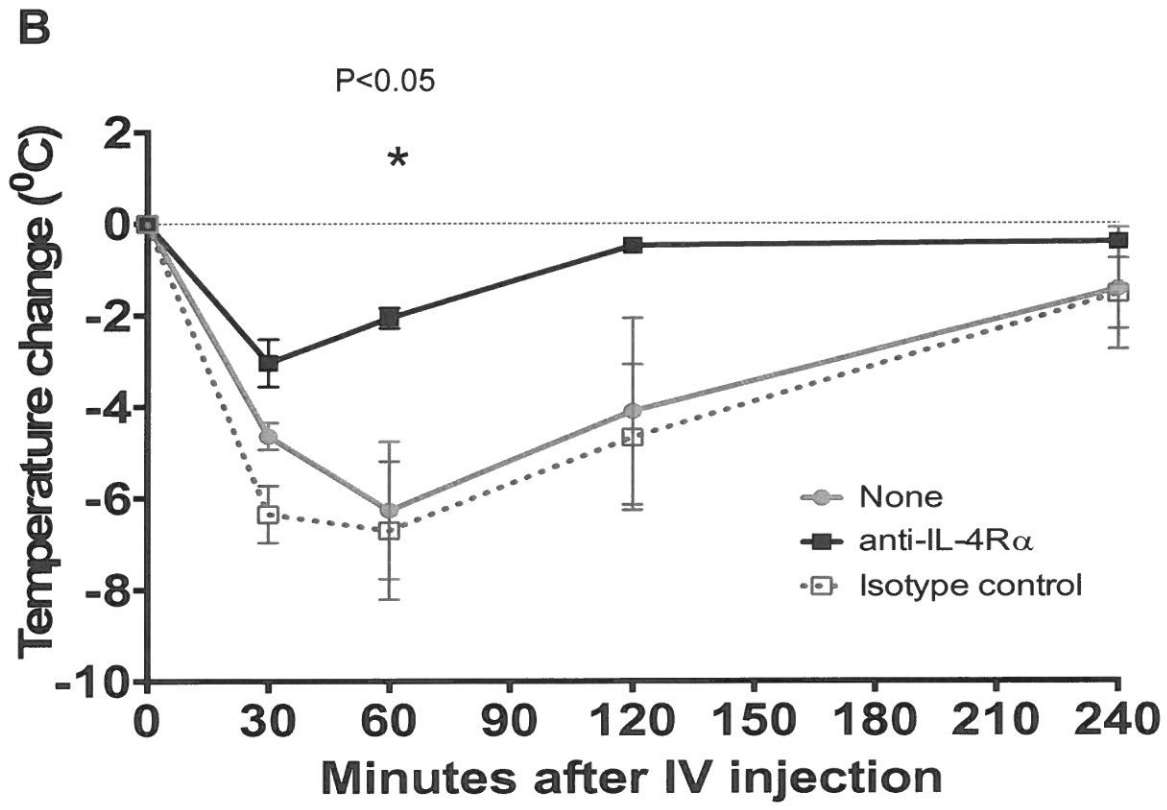


Figure 3

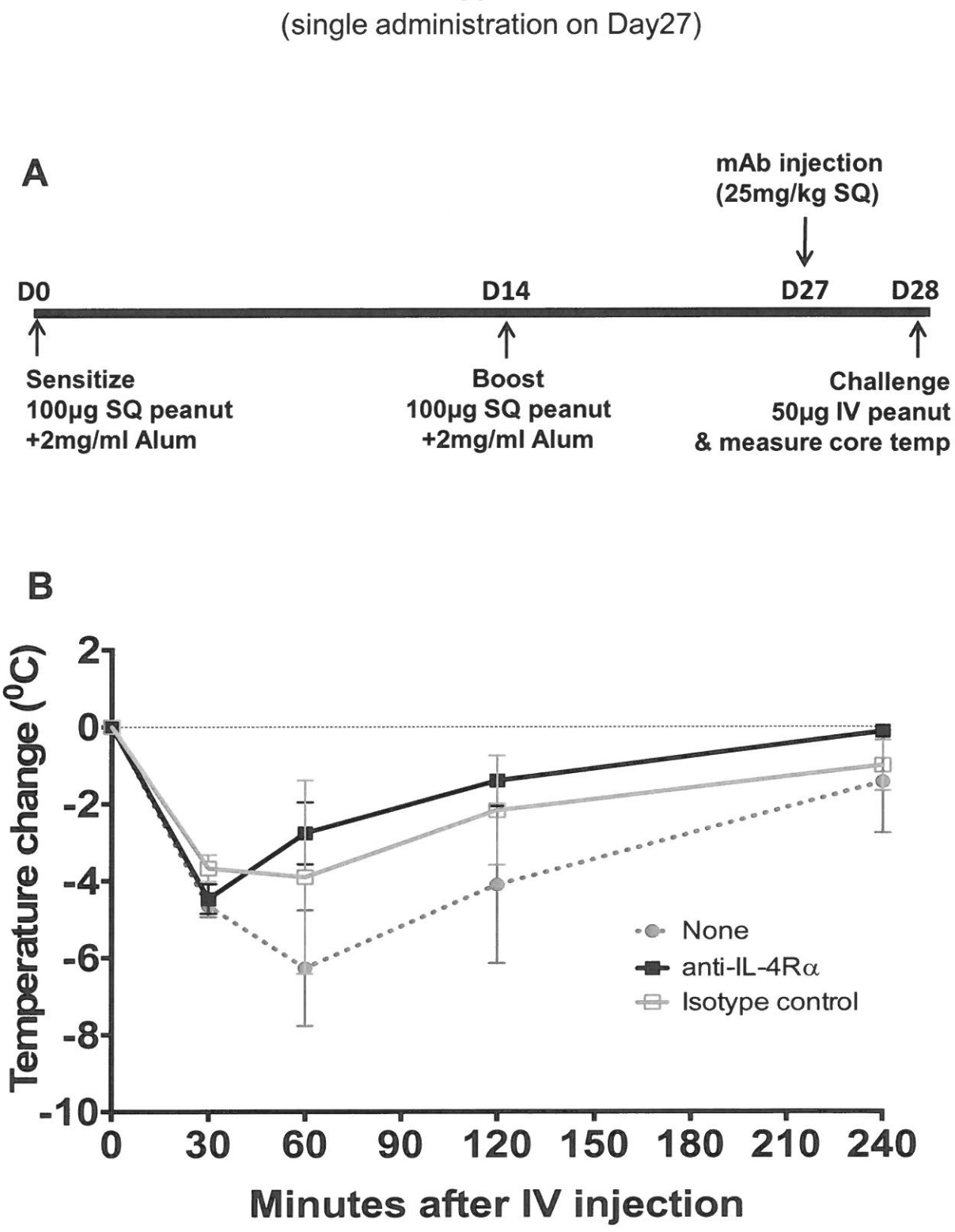

Peanut Allergy Mouse Model
(single administration on Day27)
A
mAb injection
(25mg/kg SQ)
D0
D14
D27
D28
Sensitize
100µg SQ peanut
+2mg/ml Alum
Boost
100µg SQ peanut
+2mg/ml Alum
Challenge
50µg IV peanut
& measure core temp
B
Temperature change (°C)
2
0
-2
-4
-6
-8
-10
0
30
60
90
120
150
180
210
240
Minutes after IV injection
None
anti-IL-4Rα
Isotype control

Figure 4

Total IgE Levels

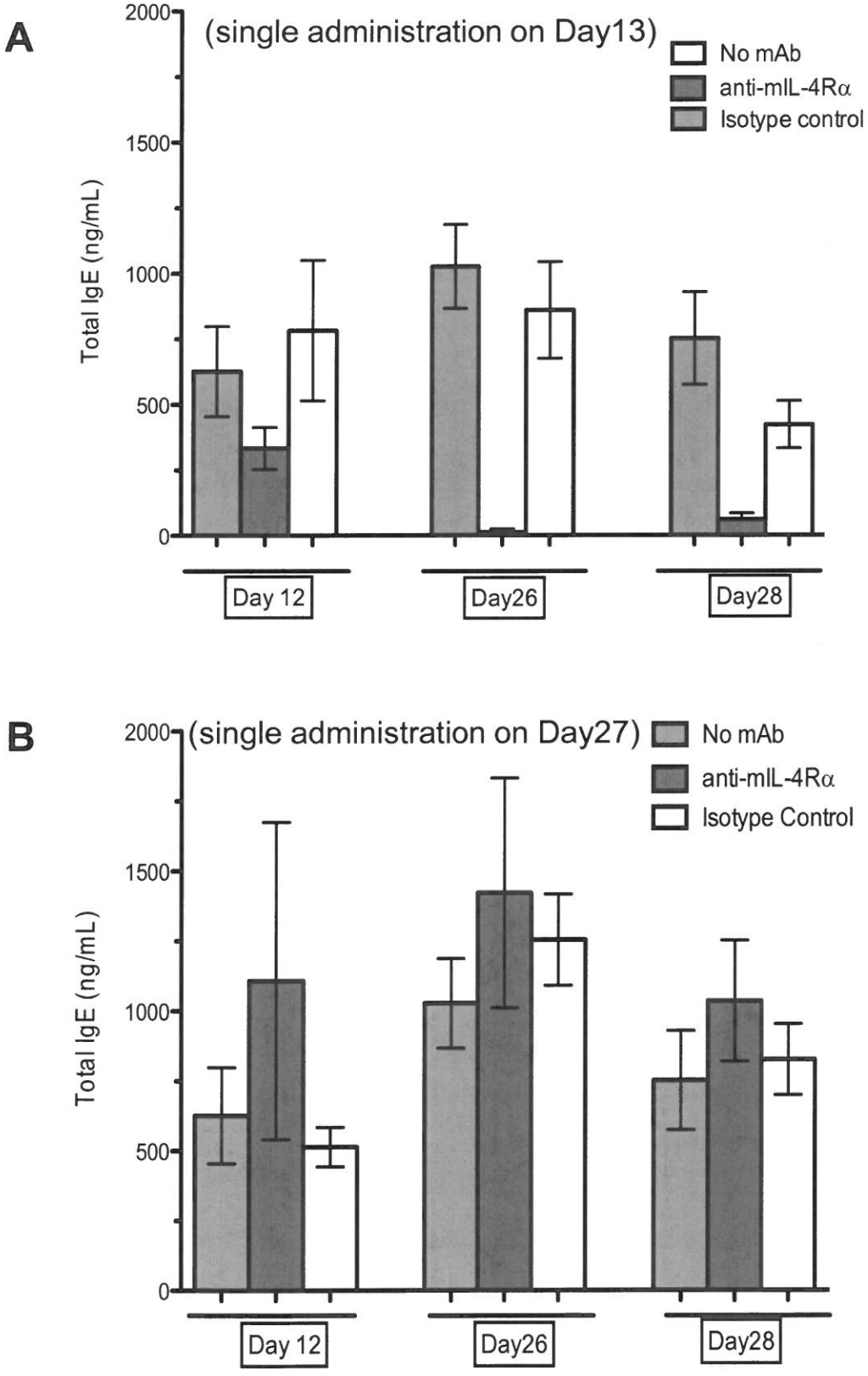


Figure 5

Peanut Specific Immunotherapy Mouse Model

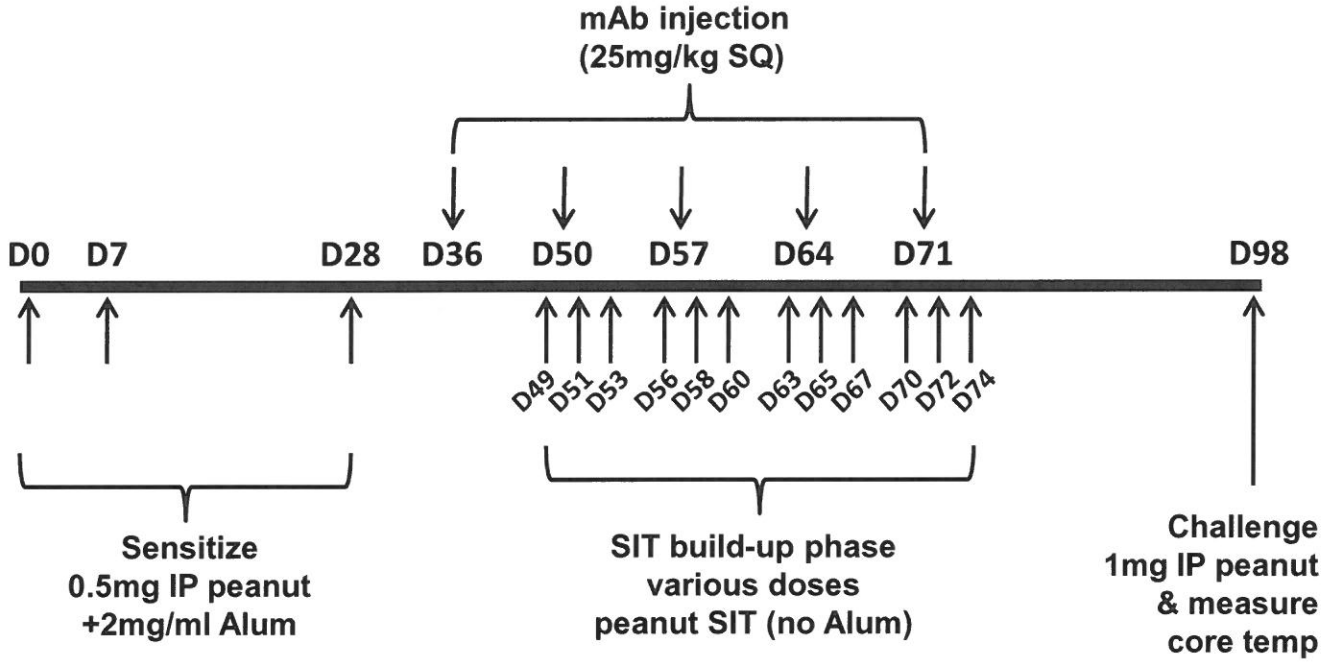


Figure 6

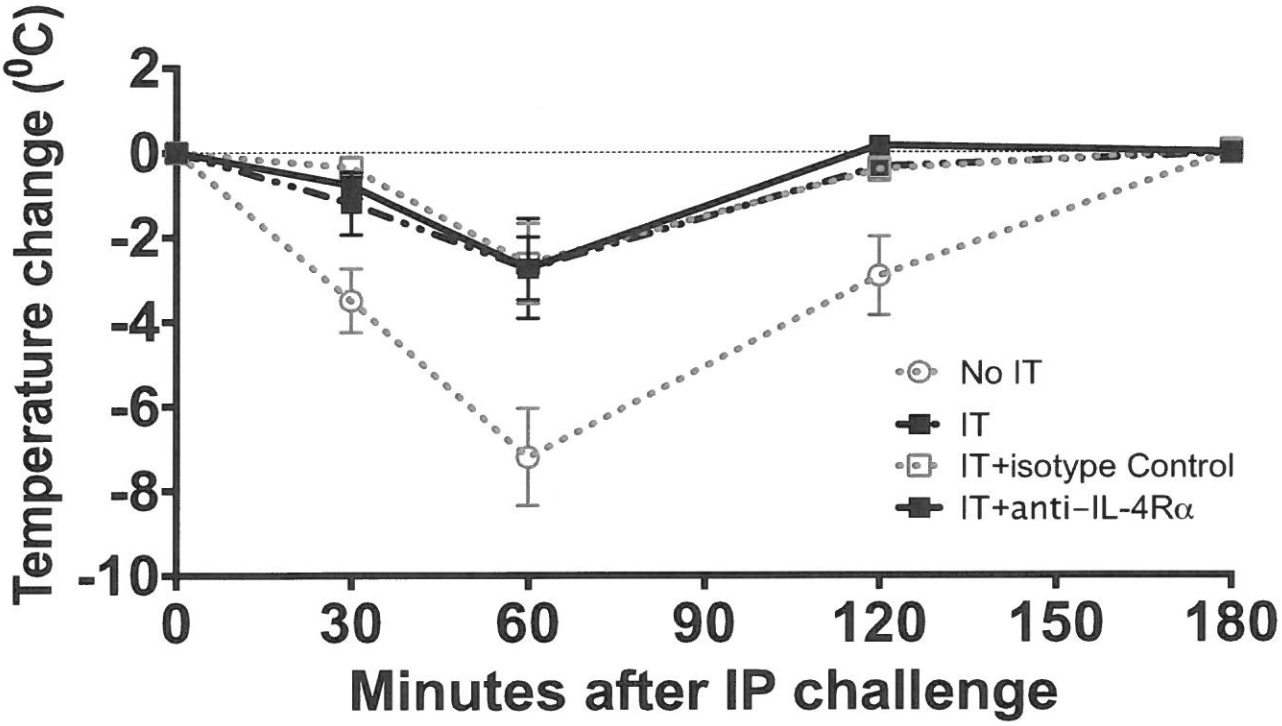

Temperature change (^{0}C)
2
0
-2
-4
-6
-8
-10
0
30
60
90
120
150
180
Minutes after IP challenge
No IT
IT
IT+isotype Control
IT+anti-IL-4Rα

Figure 7

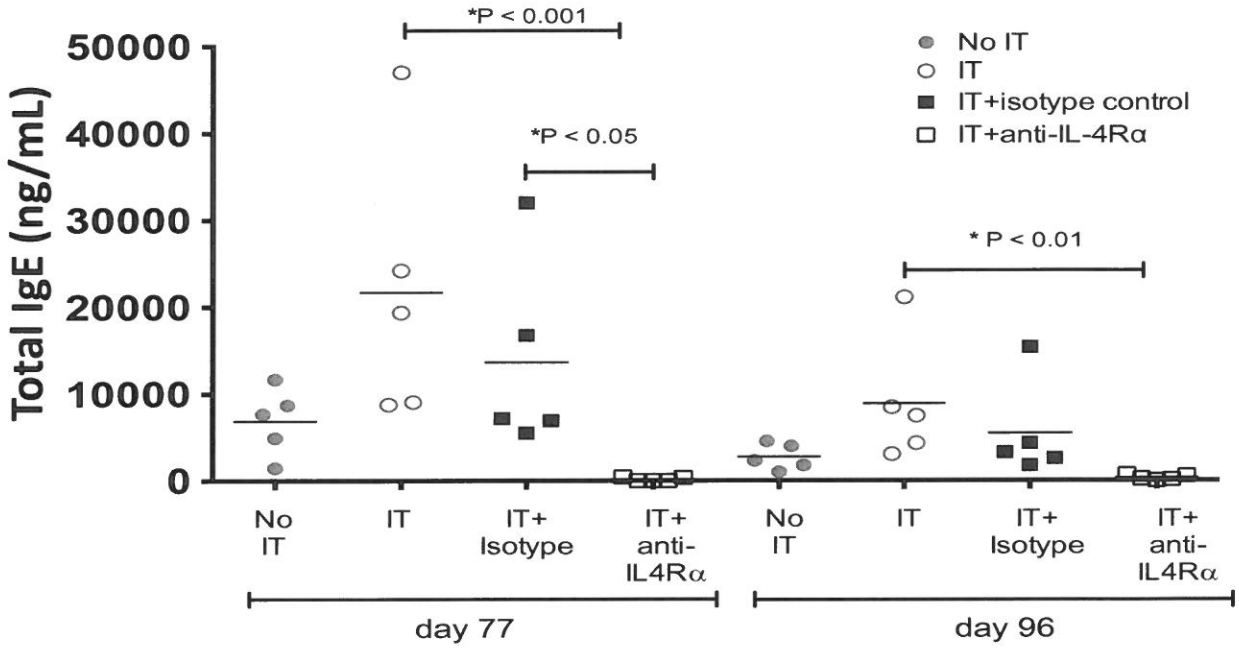

*P < 0.001
*P < 0.05
* P < 0.01
No IT
IT
IT+isotype control
IT+anti-IL-4Rα
Total IgE (ng/mL)
50000
40000
30000
20000
10000
0
No IT
IT
IT+ Isotype
IT+ anti-IL4Rα
No IT
IT
IT+ Isotype
IT+ anti-IL4Rα
day 77
day 96

Figure 8

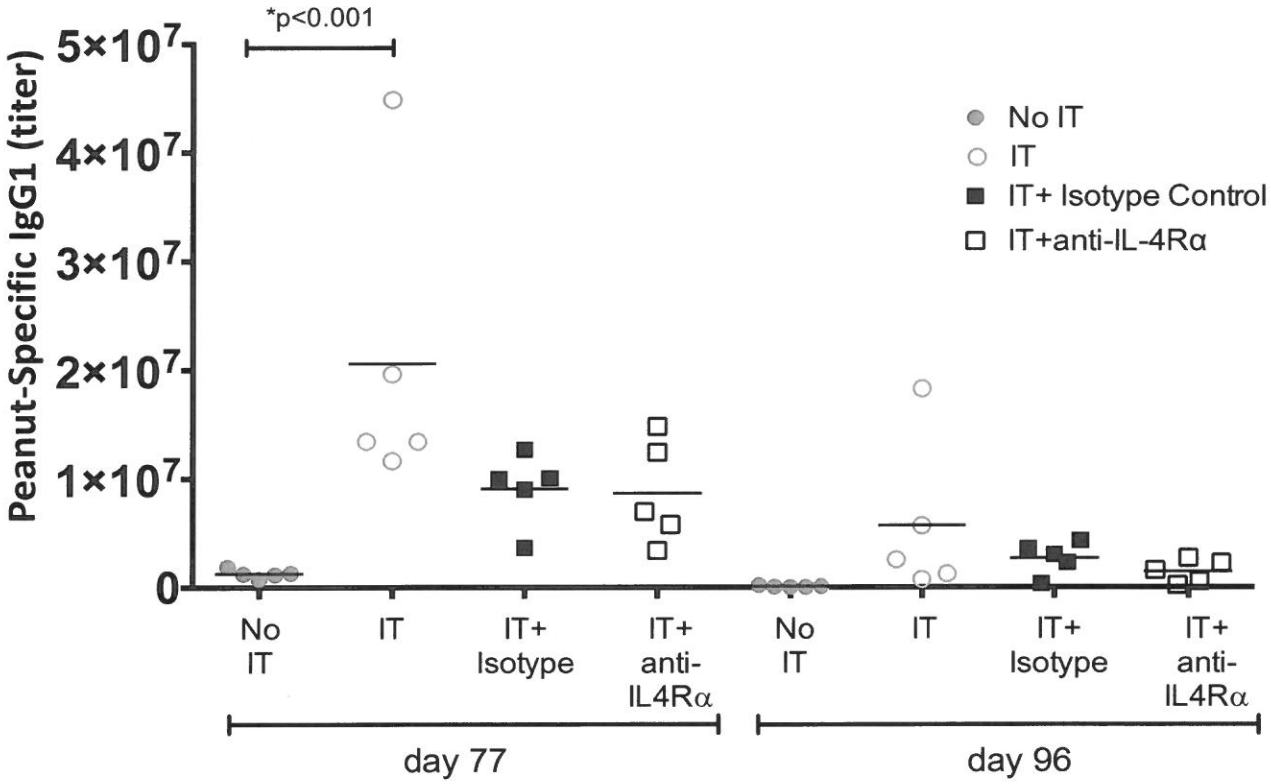

*p<0.001
Peanut-Specific IgG1 (titer)
5×10^7
4×10^7
3×10^7
2×10^7
1×10^7
0
No IT
IT
IT+ Isotype Control
IT+anti-IL-4Rα
No IT
IT
IT+ Isotype
IT+ anti-IL4Rα
No IT
IT
IT+ Isotype
IT+ anti-IL4Rα
day 77
day 96

Figure 9

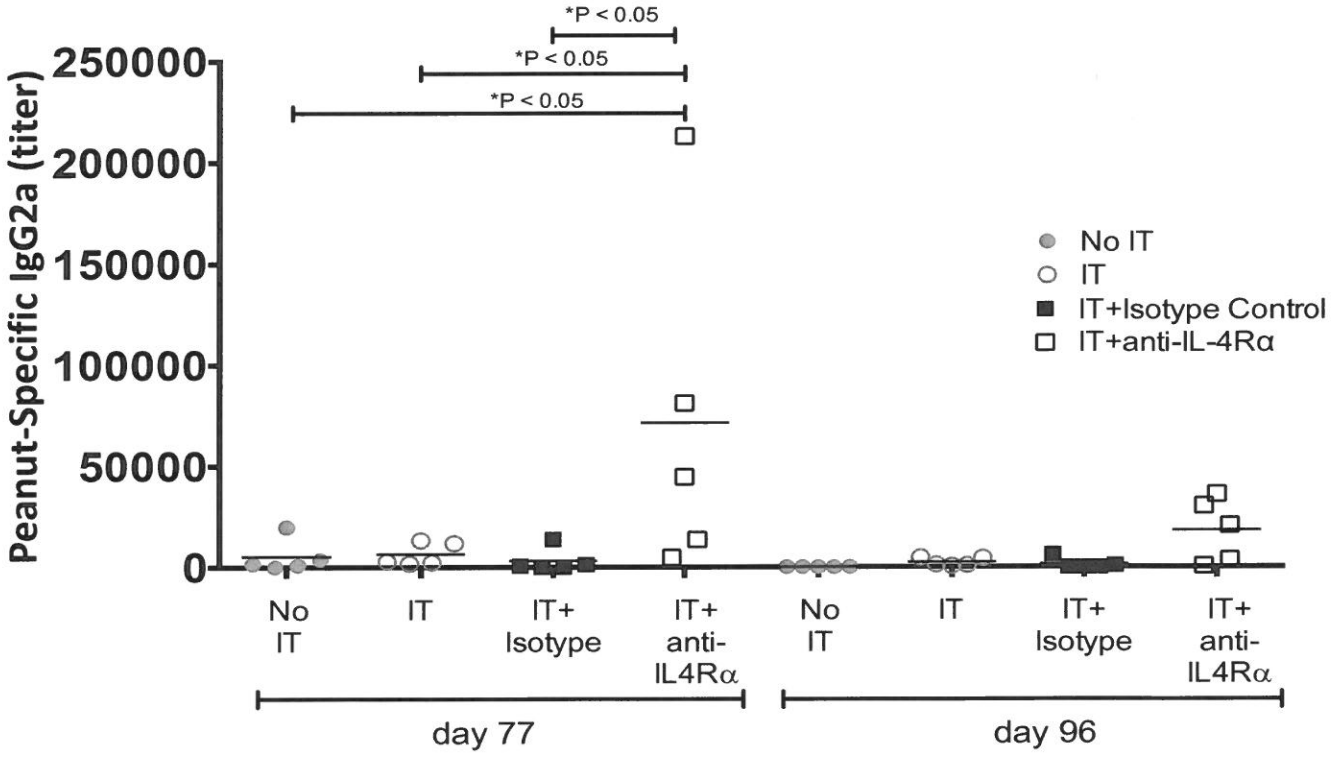

*P < 0.05
*P < 0.05
*P < 0.05
Peanut-Specific IgG2a (titer)
250000
200000
150000
100000
50000
0
No IT
IT
IT+Isotype Control
IT+anti-IL-4Rα
No IT
IT
IT+ Isotype
IT+ anti-IL4Rα
No IT
IT
IT+ Isotype
IT+ anti-IL4Rα
day 77
day 96

Figure 10

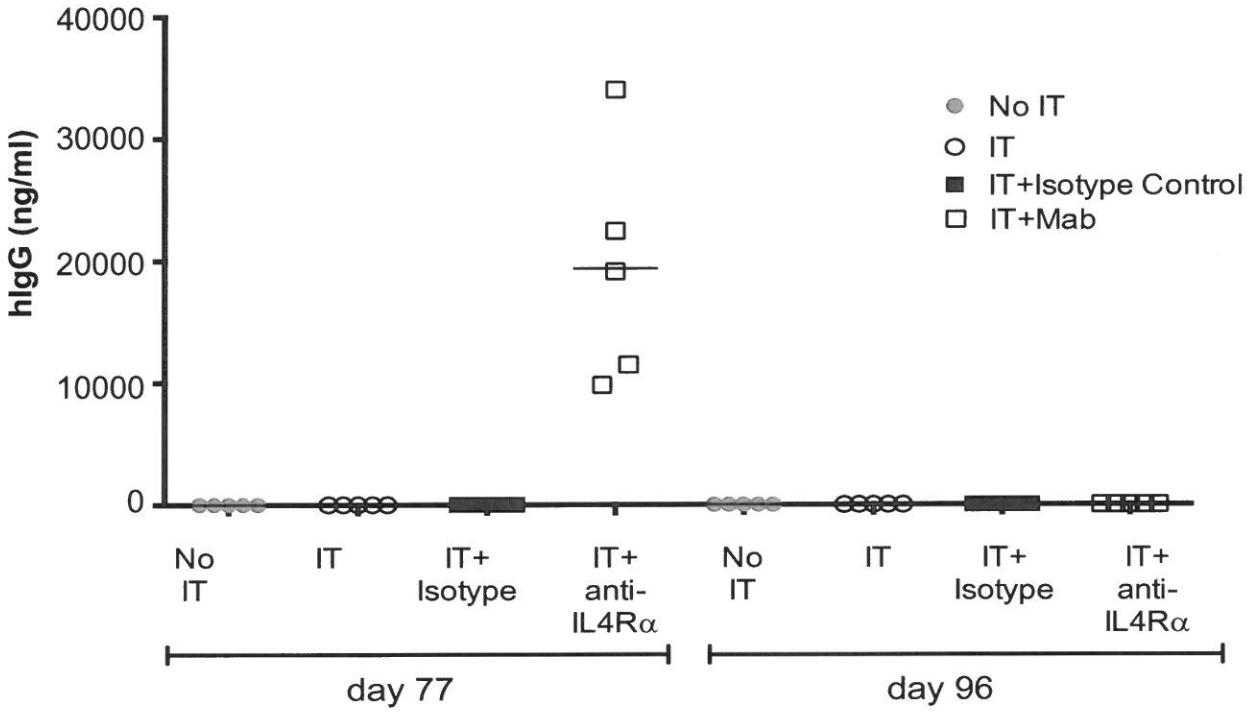

40000
30000
20000
10000
0
hIgG (ng/ml)
No IT
IT
IT+Isotype Control
IT+Mab
No IT
IT
IT+ Isotype
IT+ anti-IL4Rα
No IT
IT
IT+ Isotype
IT+ anti-IL4Rα
day 77
day 96

Figure 11

Peanut Specific Immunotherapy Mouse Model

(less frequent dosing during build-up phase)

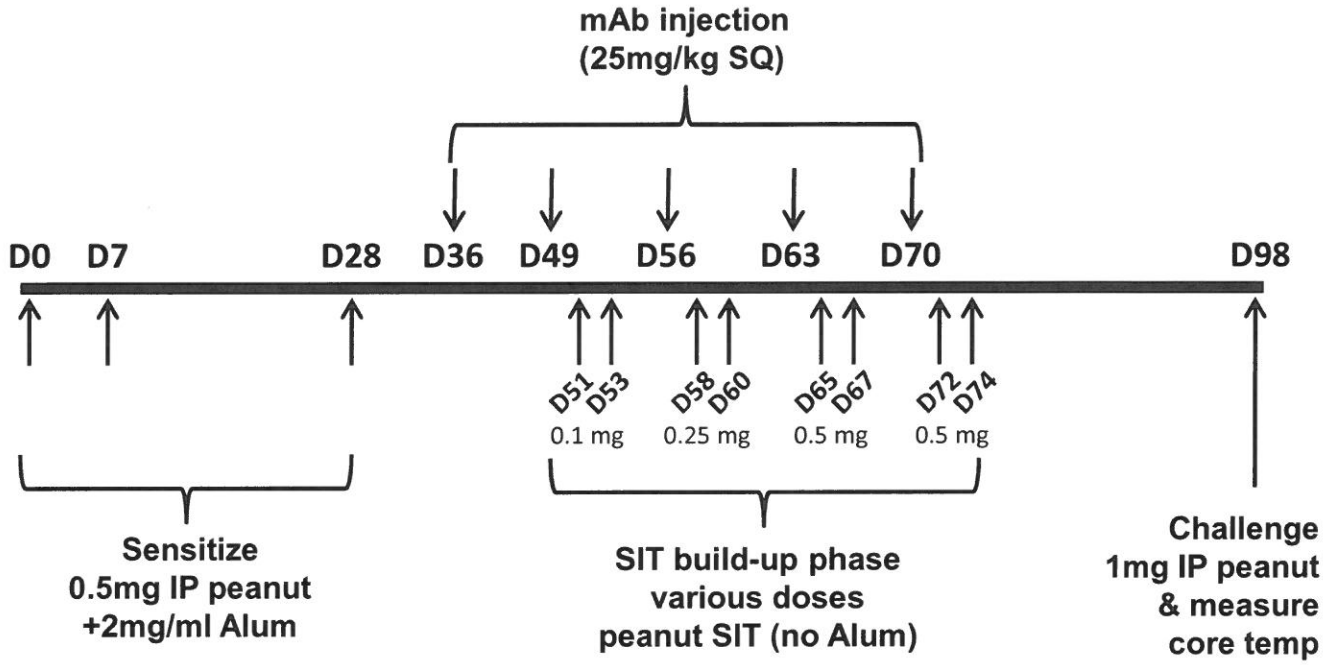


Figure 12

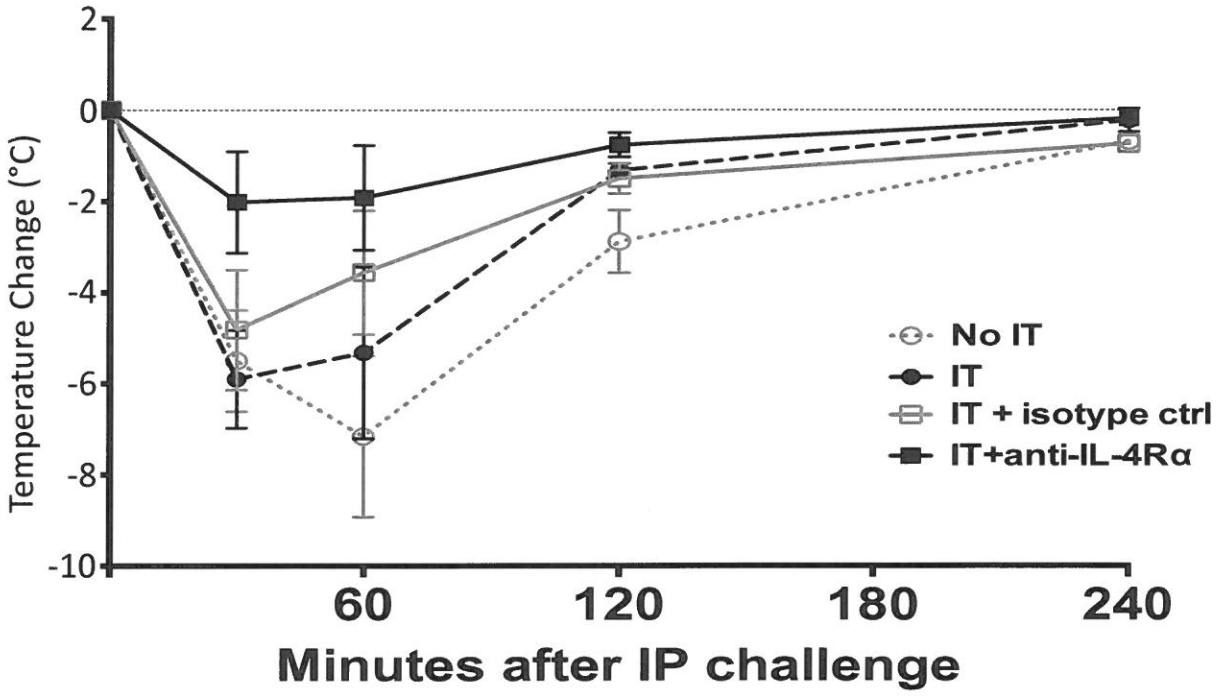

2
0
-2
-4
-6
-8
-10
Temperature Change (°C)
60
120
180
240
Minutes after IP challenge
No IT
IT
IT + isotype ctrl
IT+anti-IL-4Rα

Figure 13

SEQUENCE LISTING

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<120> METHODS OF TREATING ALLERGY AND
ENHANCING ALLERGEN-SPECIFIC IMMUNOTHERAPY BY ADMINISTERING
AN IL-4R INHIBITOR

<130> 6037-WO

<150> 61/830,919
<151> 2013-06-04

<160> 11

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20 25 30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ser Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu
100 105 110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120

<210> 2
<211> 112
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<220>
<223> LCVR

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1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30
Ile Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Ser Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro

```
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Phe Tyr Tyr Cys Met Gln Ala
                85                  90                  95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110


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<211> 8
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<220>
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 1               5


<210> 4
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4
Ile Ser Gly Ser Gly Gly Asn Thr
 1               5


<210> 5
<211> 18
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Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu
 1               5                  10                  15
Asp Val



<210> 6
<211> 11
<212> PRT
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<220>
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<400> 6
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 1               5                  10
```

<210> 7
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 7
Leu Gly Ser
 1

<210> 8
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 8
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 1   5

<210> 9
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> HCVR mouse surrogate

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Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Arg Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
            20   25   30
Asn Ile His Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn Gln Lys Phe
    50   55   60
Arg Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Arg Ser Leu Thr Ser Asp Asp Ser Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Arg Leu Arg Tyr Phe Asp Val Trp Gly Thr Gly Thr Thr
            100   105   110
Val Thr Val Ser Ser
        115

<210> 10
<211> 111
<212> PRT
<213> Artificial Sequence

<220>

<223> LCVR mouse surrogate

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 1   5   10   15
Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Asn Tyr
            20   25   30
Gly His Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
        35   40   45
Lys Leu Leu Ile Tyr Leu Ala Ser Asn Leu Glu Ser Gly Val Pro Ala
    50   55   60
Arg Phe Ser Gly Ser Gly Ser Arg Thr Asp Phe Thr Leu Thr Leu Asp
65   70   75   80
Pro Val Glu Ala Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn
                85   90   95
Glu Asp Pro Pro Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 11
<211> 207
<212> PRT
<213> Artificial Sequence

<220>
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            20   25   30
Leu Arg Leu Leu Tyr Gln Leu Val Phe Leu Leu Ser Glu Ala His Thr
        35   40   45
Cys Ile Pro Glu Asn Asn Gly Gly Ala Gly Cys Val Cys His Leu Leu
    50   55   60
Met Asp Asp Val Val Ser Ala Asp Asn Tyr Thr Leu Asp Leu Trp Ala
65   70   75   80
Gly Gln Gln Leu Leu Trp Lys Gly Ser Phe Lys Pro Ser Glu His Val
                85   90   95
Lys Pro Arg Ala Pro Gly Asn Leu Thr Val His Thr Asn Val Ser Asp
            100   105   110
Thr Leu Leu Leu Thr Trp Ser Asn Pro Tyr Pro Pro Asp Asn Tyr Leu
        115   120   125
Tyr Asn His Leu Thr Tyr Ala Val Asn Ile Trp Ser Glu Asn Asp Pro
    130   135   140
Ala Asp Phe Arg Ile Tyr Asn Val Thr Tyr Leu Glu Pro Ser Leu Arg
145   150   155   160
Ile Ala Ala Ser Thr Leu Lys Ser Gly Ile Ser Tyr Arg Ala Arg Val
                165   170   175
Arg Ala Trp Ala Gln Cys Tyr Asn Thr Thr Trp Ser Glu Trp Ser Pro
            180   185   190
Ser Thr Lys Trp His Asn Ser Tyr Arg Glu Pro Phe Glu Gln His
        195   200   205