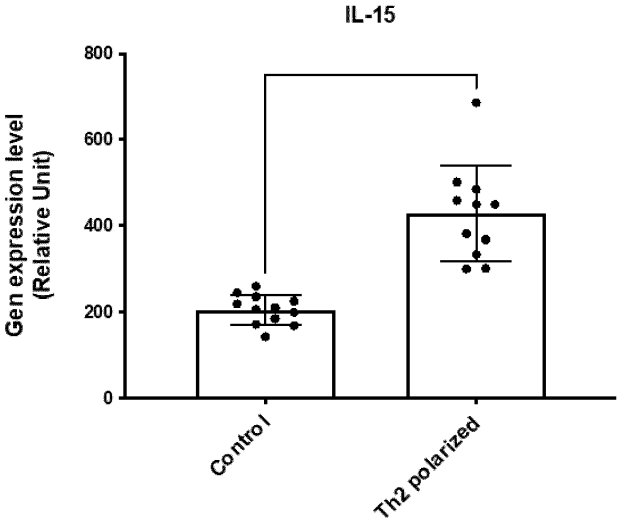
A


IL-15
Gen expression level (Relative Unit)
800
600
400
200
0
Control
Th2 polarized

B

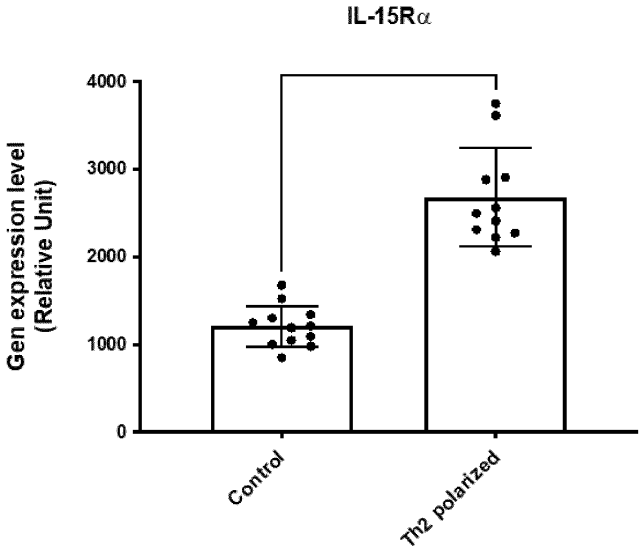
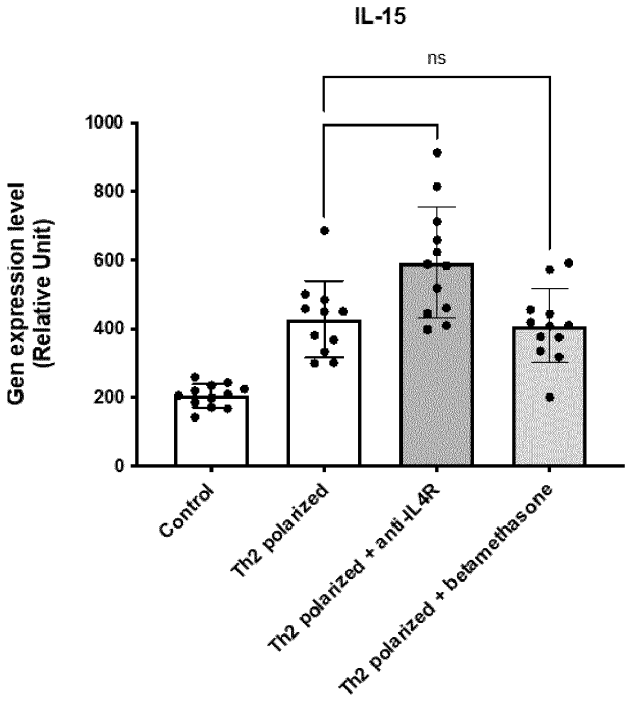

IL-15Rα
Gen expression level (Relative Unit)
4000
3000
2000
1000
0
Control
Th2 polarized

Figure 1

A


IL-15
ns
Gen expression level (Relative Unit)
1000
800
600
400
200
0
Control
Th2 polarized
Th2 polarized + anti-IL4R
Th2 polarized + betamethasone

B

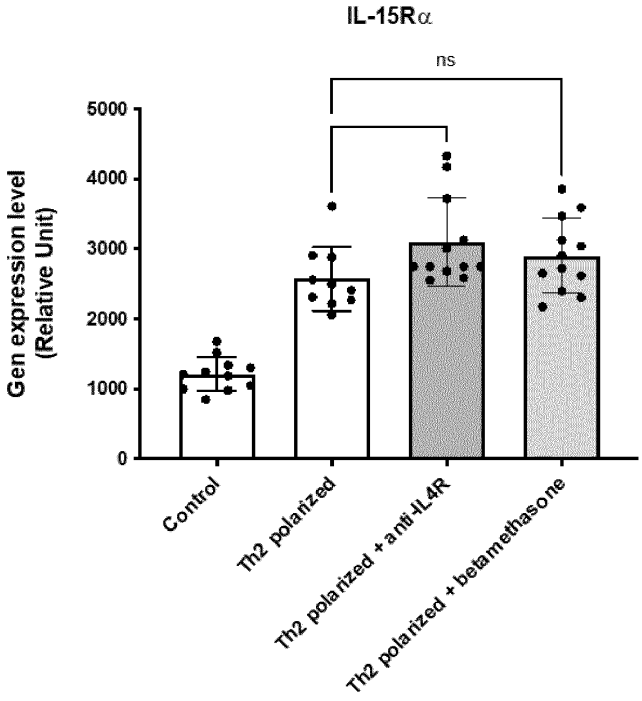

IL-15Rα
ns
Gen expression level (Relative Unit)
5000
4000
3000
2000
1000
0
Control
Th2 polarized
Th2 polarized + anti-IL4R
Th2 polarized + betamethasone

Figure 2

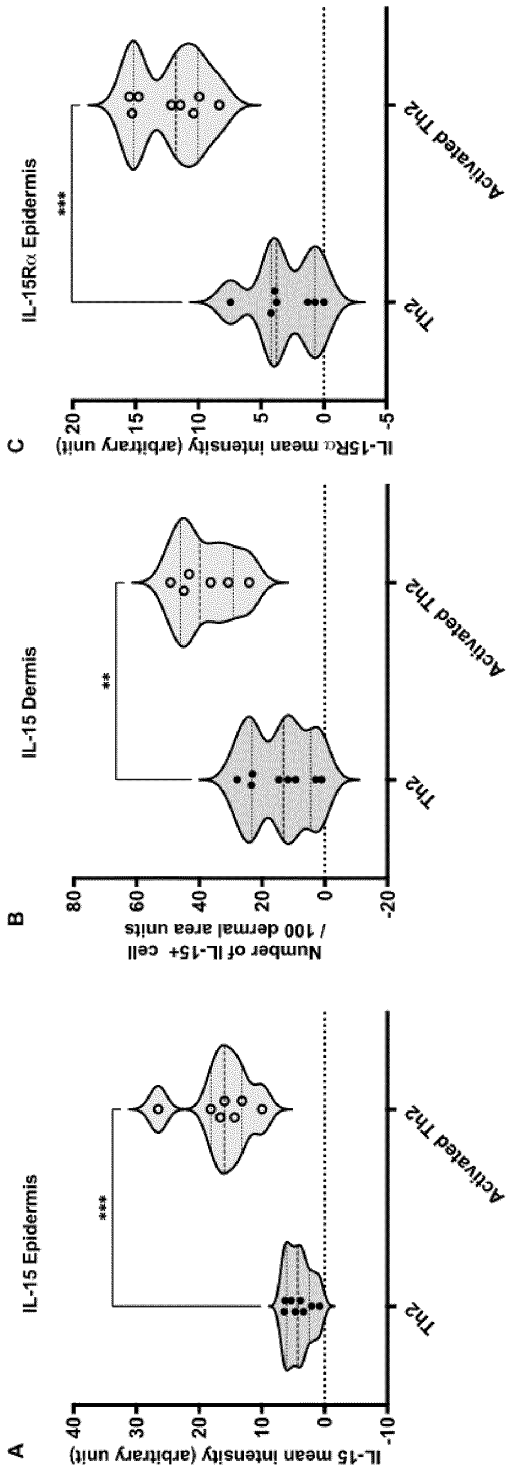

A
IL-15 Epidermis
IL-15 mean intensity (arbitrary unit)
40
30
20
10
0
-10
***
Th2
Activated Th2
B
IL-15 Dermis
Number of IL-15+ cell / 100 dermal area units
80
60
40
20
0
-20
**
Th2
Activated Th2
C
IL-15Rα Epidermis
IL-15Rα mean intensity (arbitrary unit)
20
15
10
5
0
-5
***
Th2
Activated Th2

Figure 3

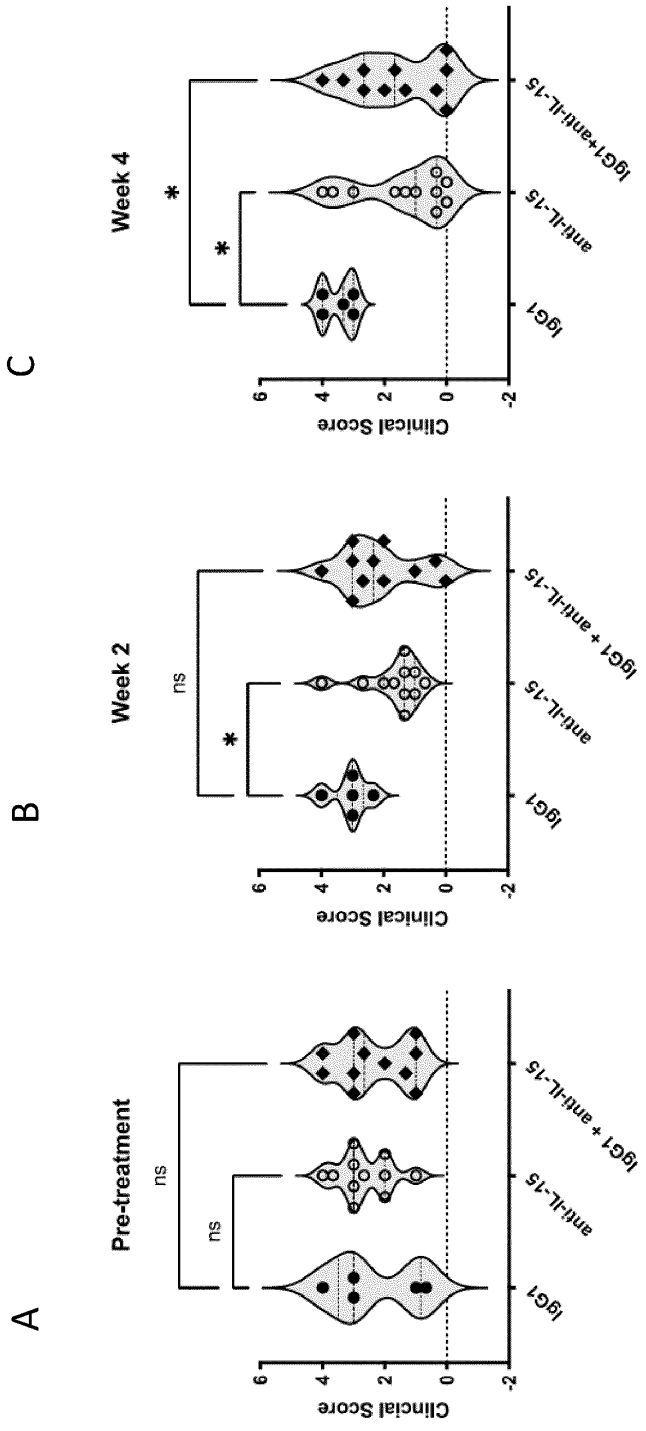

A
B
C
Pre-treatment
Week 2
Week 4
Clinical Score
6
4
2
0
-2
ns
*
IgG1
anti-IL-15
IgG1 + anti-IL-15

Figure 4

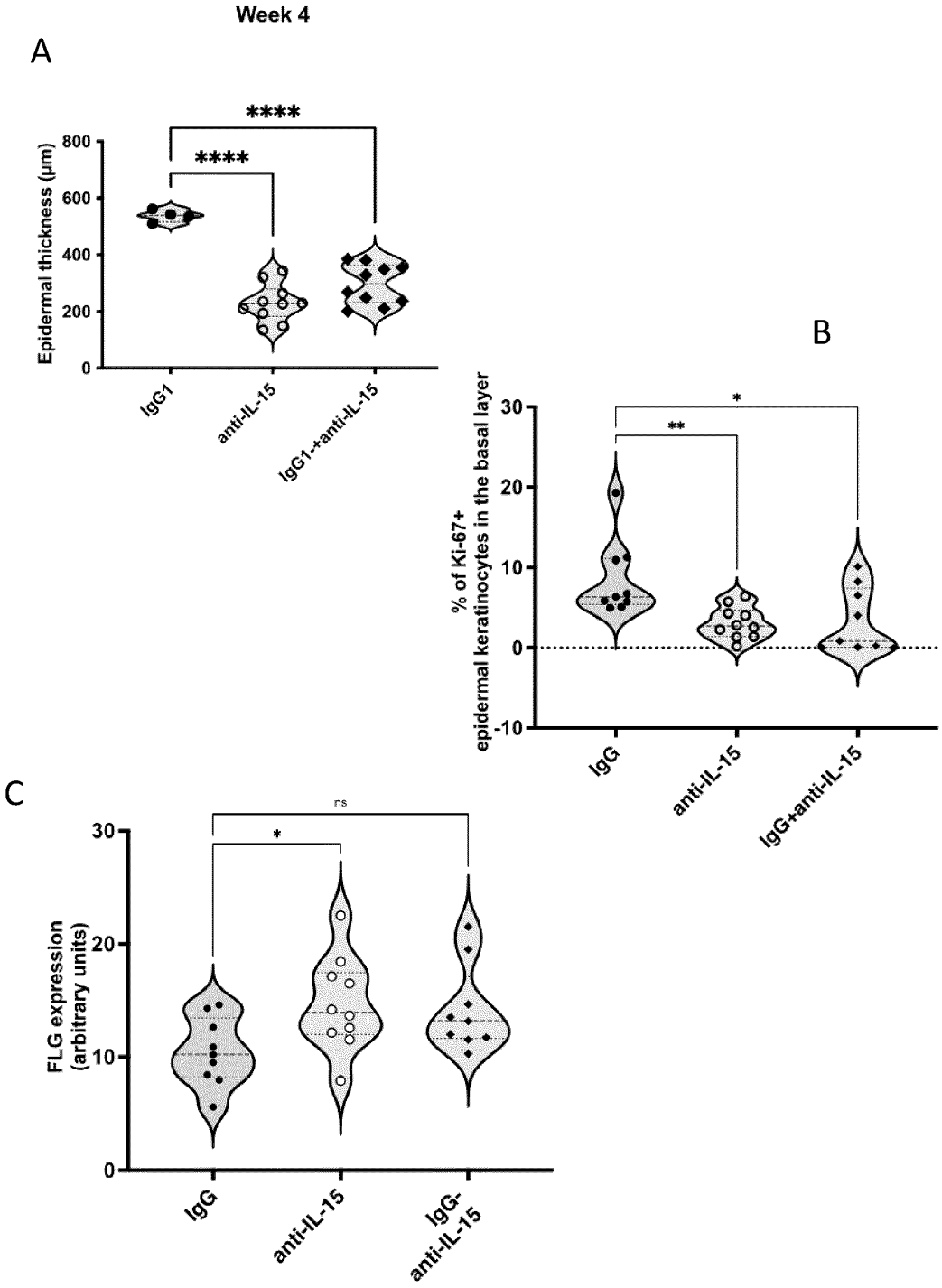

Week 4
A
Epidermal thickness (µm)
800
600
400
200
0
****
****
IgG1
anti-IL-15
IgG1-+anti-IL-15
B
% of Ki-67+ epidermal keratinocytes in the basal layer
30
20
10
0
-10
*
**
IgG
anti-IL-15
IgG+anti-IL-15
C
FLG expression (arbitrary units)
30
20
10
0
ns
*
IgG
anti-IL-15
IgG-anti-IL-15

Figure 5

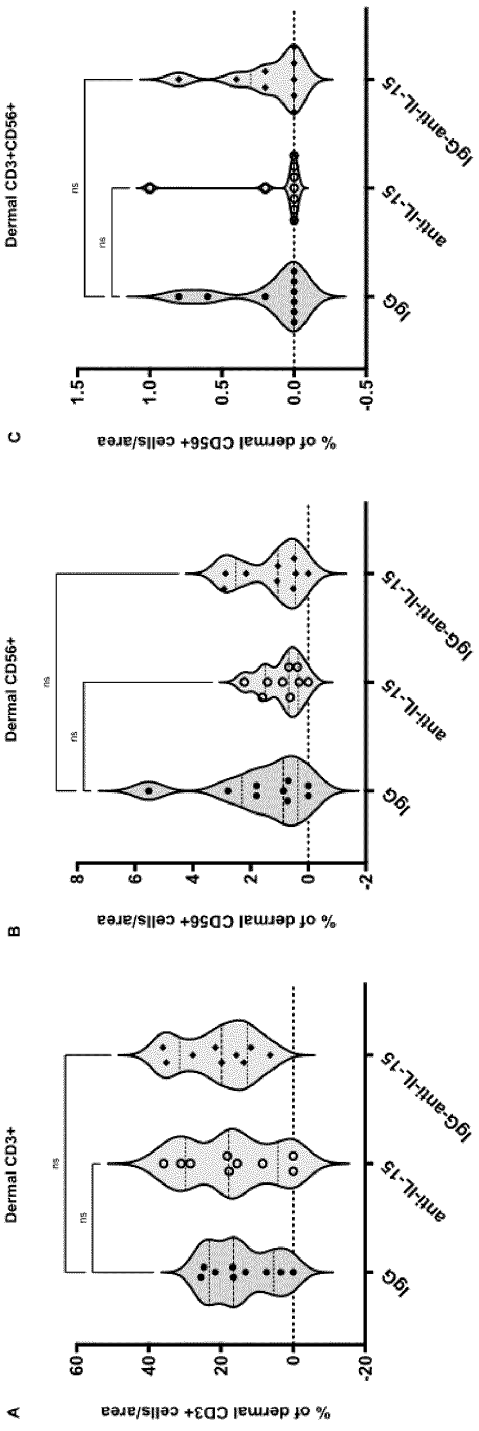

A
Dermal CD3+
% of dermal CD3+ cells/area
60
40
20
0
-20
ns
ns
IgG
anti-IL-15
IgG-anti-IL-15
B
Dermal CD56+
% of dermal CD56+ cells/area
8
6
4
2
0
-2
ns
ns
IgG
anti-IL-15
IgG-anti-IL-15
C
Dermal CD3+CD56+
% of dermal CD56+ cells/area
1.5
1.0
0.5
0.0
-0.5
ns
ns
IgG
anti-IL-15
IgG-anti-IL-15

Figure 6

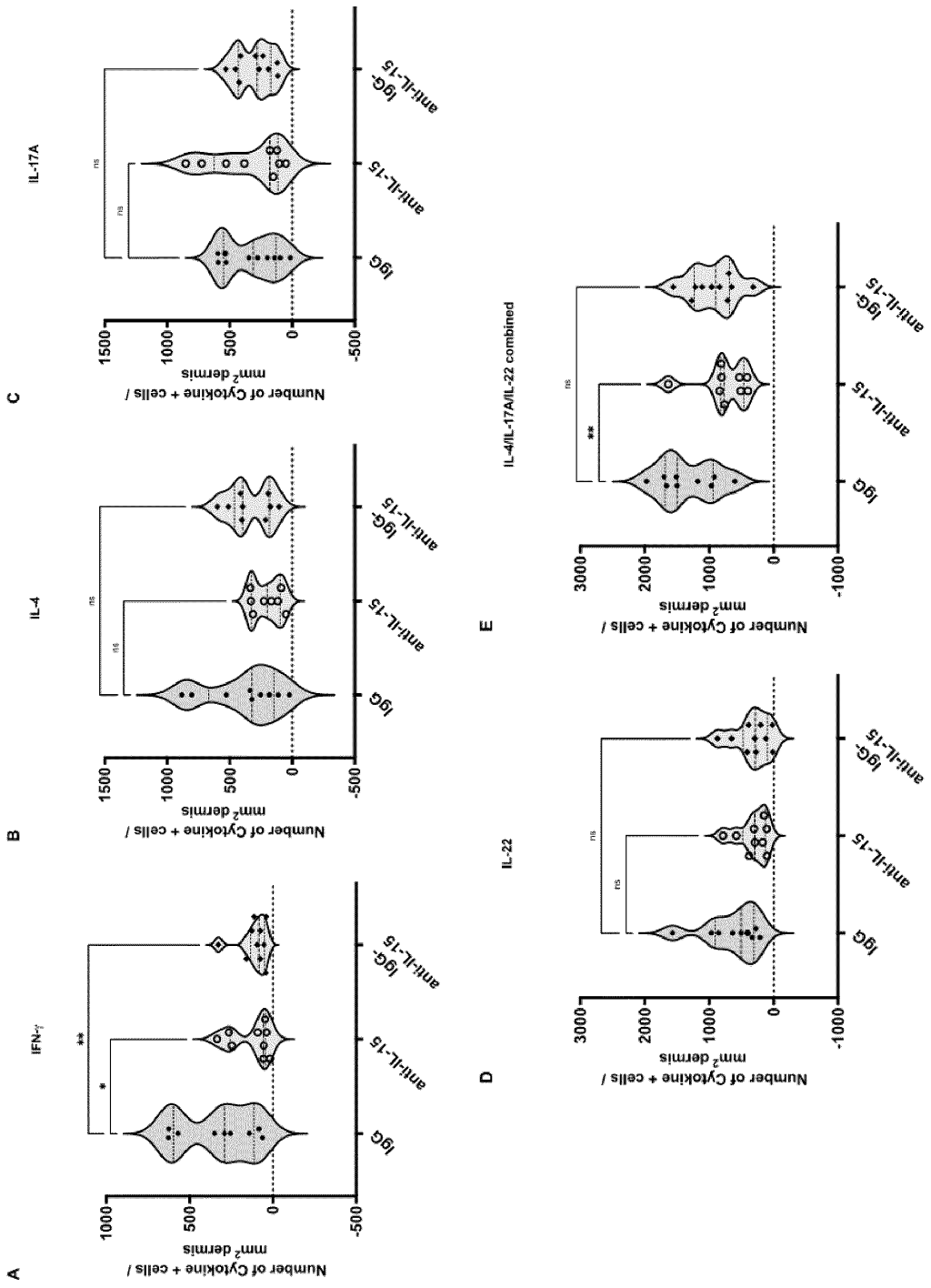

A
IFN-γ
Number of Cytokine + cells / mm² dermis
1000
500
0
-500
*
**
IgG
anti-IL-15
IgG-anti-IL-15
B
IL-4
Number of Cytokine + cells / mm² dermis
1500
1000
500
0
-500
ns
ns
IgG
anti-IL-15
IgG-anti-IL-15
C
IL-17A
Number of Cytokine + cells / mm² dermis
1500
1000
500
0
-500
ns
ns
IgG
anti-IL-15
IgG-anti-IL-15
D
IL-22
Number of Cytokine + cells / mm² dermis
3000
2000
1000
0
-1000
ns
ns
IgG
anti-IL-15
IgG-anti-IL-15
E
IL-4/IL-17A/IL-22 combined
Number of Cytokine + cells / mm² dermis
3000
2000
1000
0
-1000
**
ns
IgG
anti-IL-15
IgG-anti-IL-15

Figure 7

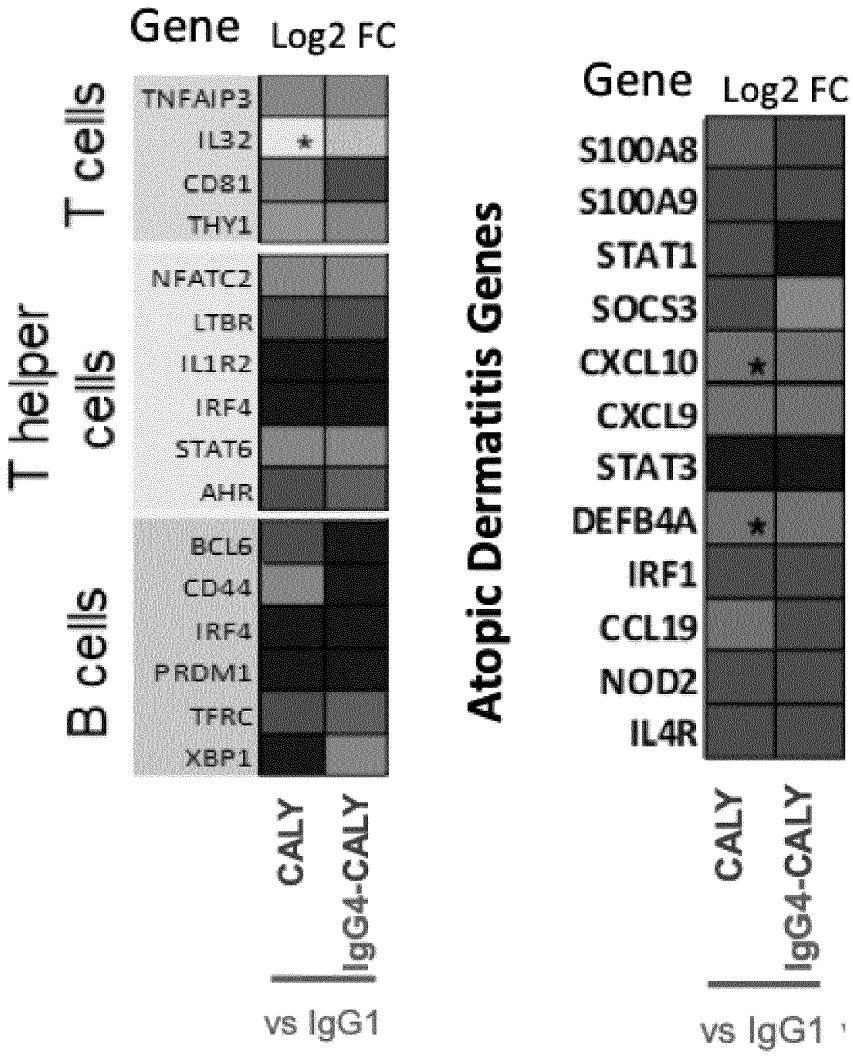

Gene
Log2 FC
T cells
T helper cells
B cells
TNFAIP3
IL32
CD81
THY1
NFATC2
LTBR
IL1R2
IRF4
STAT6
AHR
BCL6
CD44
IRF4
PRDM1
TFRC
XBP1
CALY
IgG4-CALY
vs IgG1
Atopic Dermatitis Genes
Gene
Log2 FC
S100A8
S100A9
STAT1
SOCS3
CXCL10
CXCL9
STAT3
DEFB4A
IRF1
CCL19
NOD2
IL4R
CALY
IgG4-CALY
vs IgG1

Figure 8

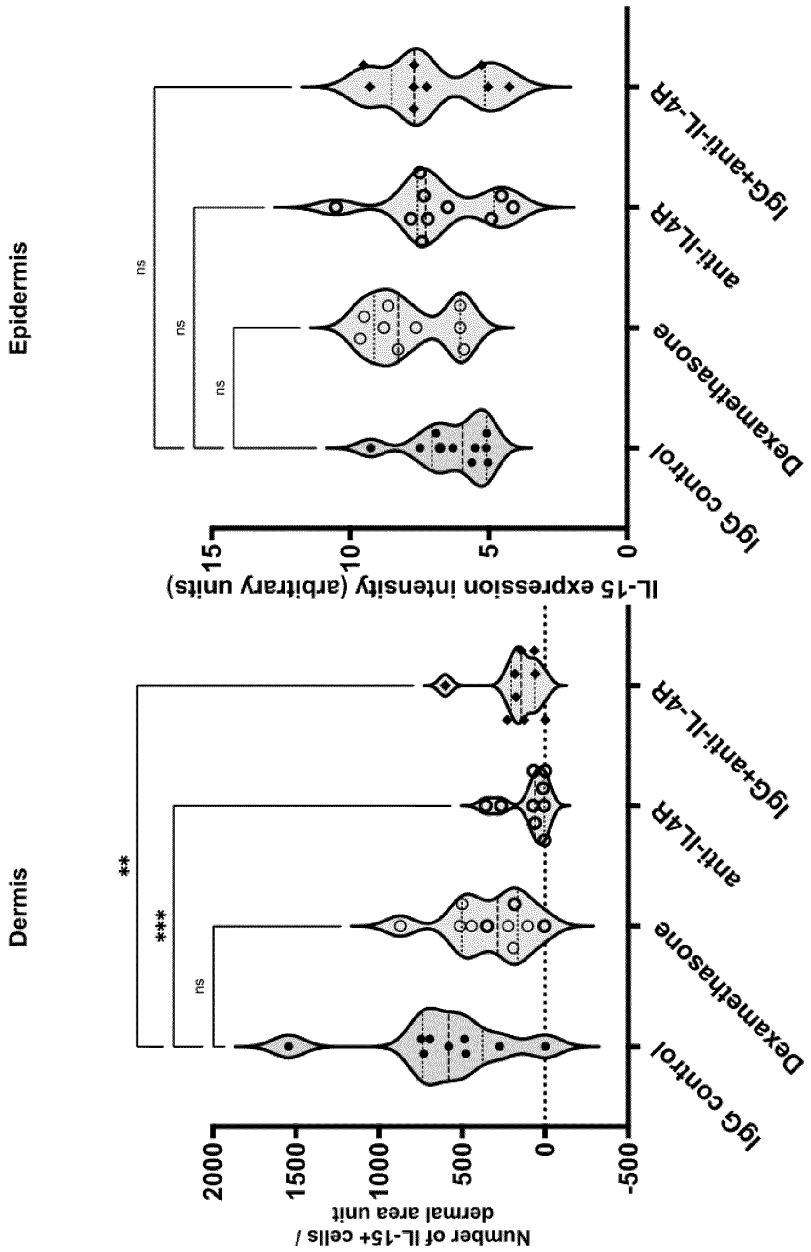

Epidermis
IL-15 expression intensity (arbitrary units)
0
5
10
15
ns
ns
ns
IgG control
Dexamethasone
anti-IL4R
IgG+anti-IL-4R
Dermis
Number of IL-15+ cells / dermal area unit
2000
1500
1000
500
0
-500
**
***
ns
IgG control
Dexamethasone
anti-IL4R
IgG+anti-IL-4R

Figure 9

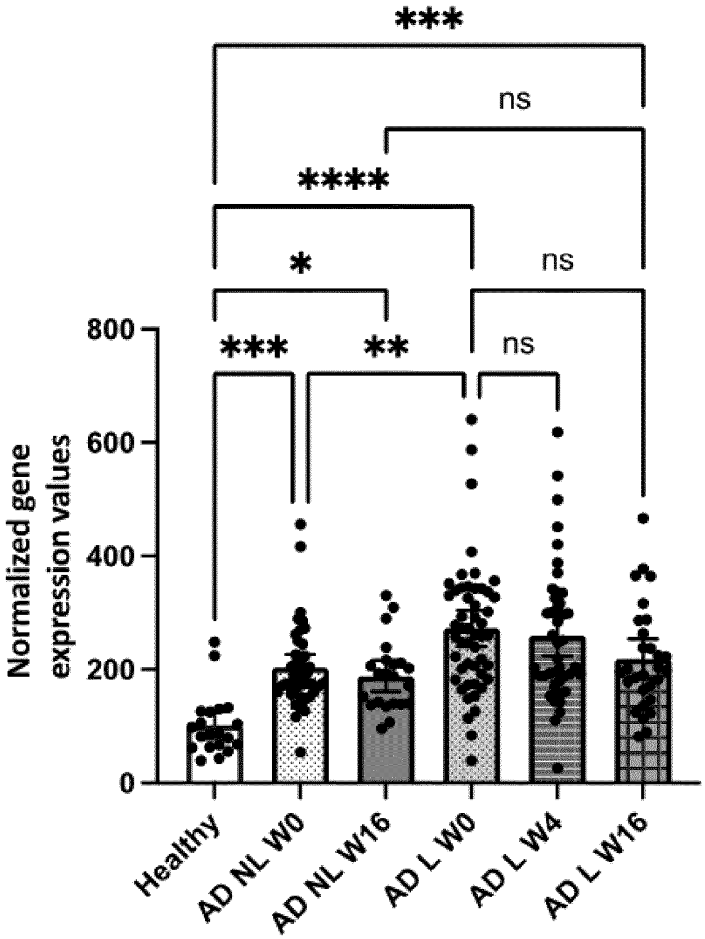

***
ns
****
*
ns
***
**
ns
800
600
400
200
0
Normalized gene expression values
Healthy
AD NL W0
AD NL W16
AD L W0
AD L W4
AD L W16

Figure 10