E Figure 1. *Antigen targeting to LC and CD103+ DC is specific.* The gating strategies are shown on the figures (upstream gate: live/singlets). Shaded represent WT and black line huLangerin mice treated with 2G3-AF647 (A-C). In D and E $LC^{-/-}$ mice left untreated (shade) or injected (black line) with 4C7-AF647. One representative experiment out of three is shown.

E Figure 2. *Targeting LC through Langerin does not induce maturation or alter cytokine profile.* (A-B) WT (black line) and huLangerin (dashed line) mice. Shaded lines indicate isotype controls. (C) As in (A), except that LC were sorted from LNs of WT (open bar) and huLangerin (black bar) mice and cytokine profile tested. (D) Cytokine profile of LC sorted from *C. albicans* infected mice.

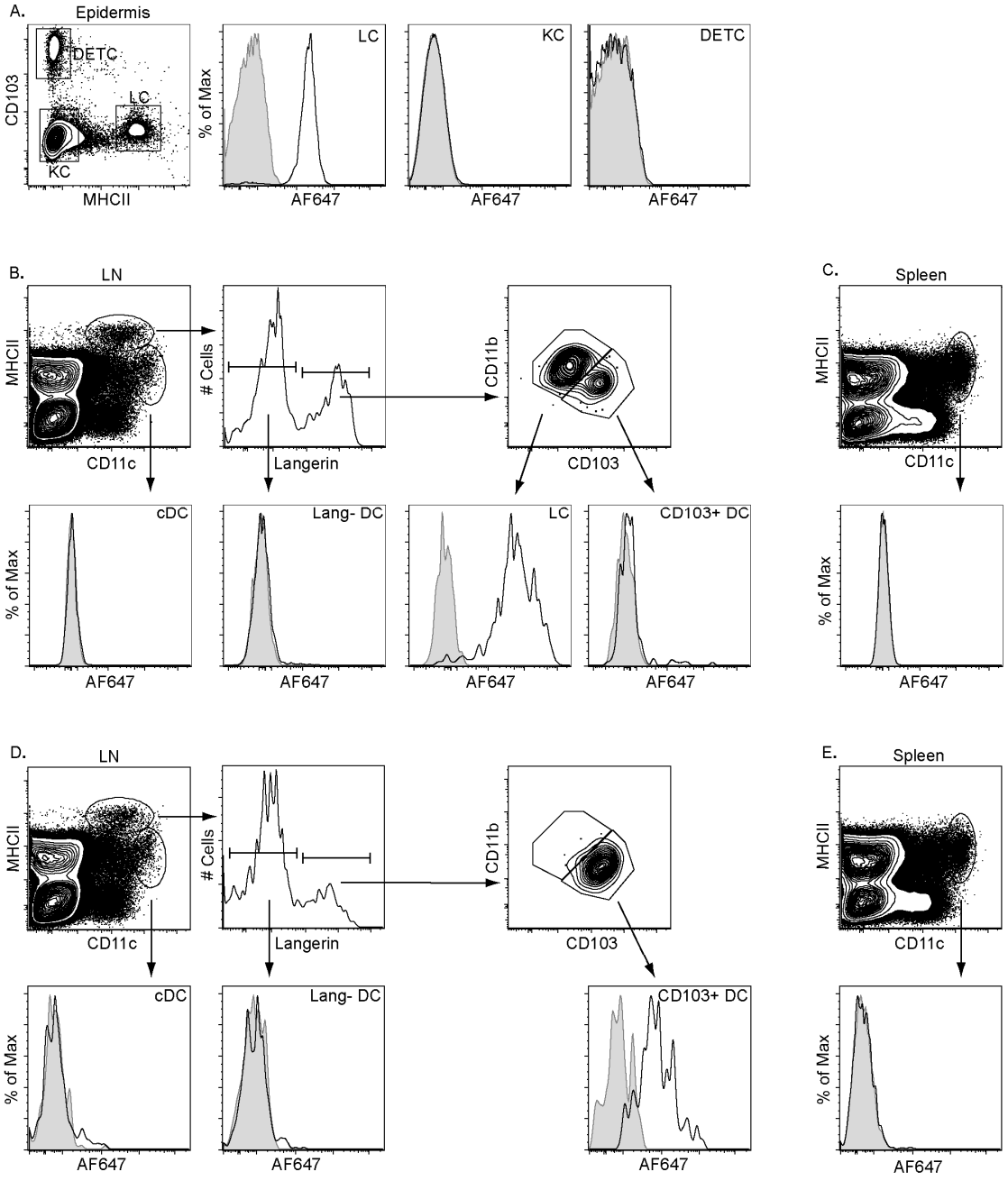
E Figure 3. *Antigen targeting to LC and CD103+ DC induce antigen-specific T cell proliferation.* (A) TEα proliferation profile in WT and huLang mice immunized with 2G3-Eα. (B) Endogenous 2W1S-specific T cell expansion induced by LC or CD103+ DC.

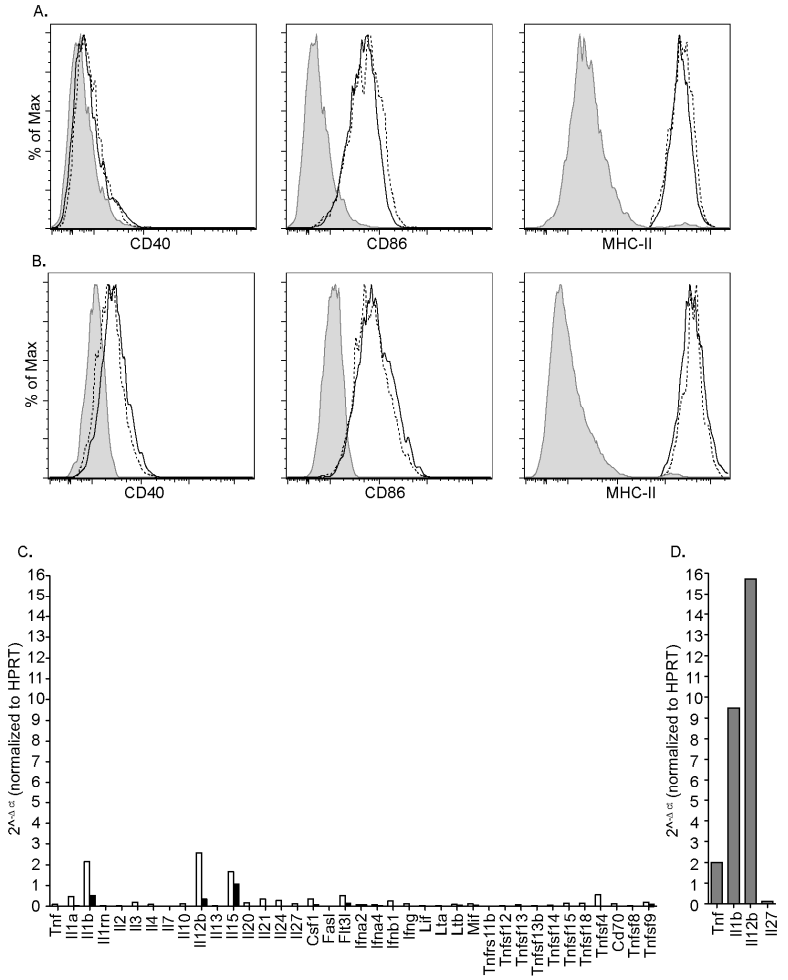
E Figure 4. *Transcription profile of LC-expanded 2W1S-specific cells.*

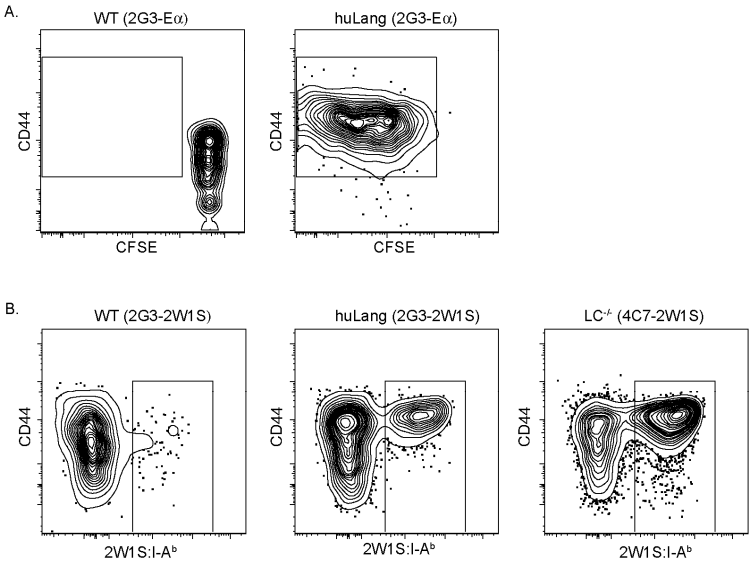
E Figure 5. *CD103+ DC induce Tfh in the context of C. albicans infection.*

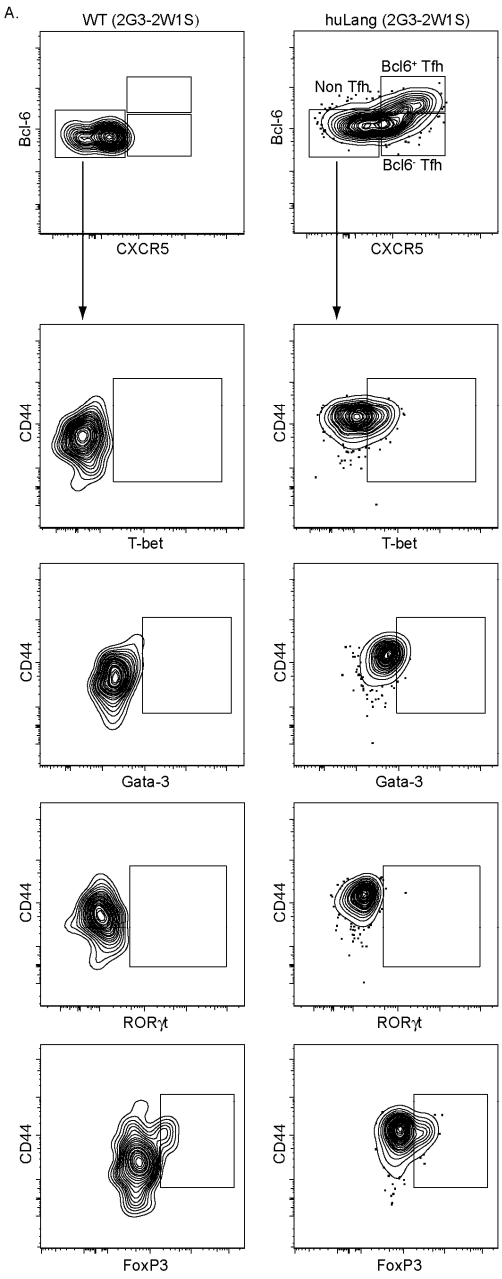
E Figure 6. *Epidermal application of 2G3-AF647 targets LC in the epidermis, but not LN LC.* (A) Mice were left untreated (grey shaded), painted with 2G3-AF647 (dashed line) or injected i.p. with 2G3-AF647 (black line). Skin and LN were harvested 18 hours after treatment and the AF647-signal assessed in LC.

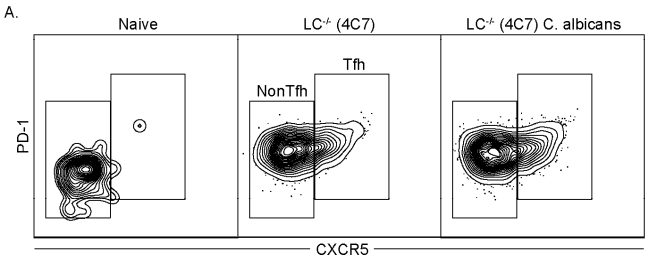
E Figure 7. *B cells are required for Bcl-6 expression by Tfh cells, but not IL-6 and type I interferon signaling*. μMT, IL-$6^{-/-}$ and $IFNAR^{-/-}$ mice were treated with 4C7-2W1S. Seven days later the expansion of 2W1S-specific cells (A) and phenotype (B-C) were determined by flow cytometry. One representative experiment out of two is shown.

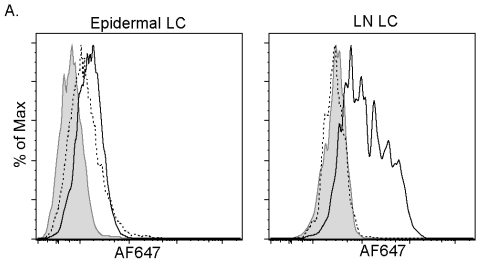

A.
Epidermis
DETC
LC
KC
CD103
MHCII
% of Max
AF647
LC
KC
DETC
B.
LN
MHCII
CD11c
Cells
Langerin
CD11b
CD103
cDC
Lang- DC
LC
CD103+ DC
C.
Spleen
D.
E.

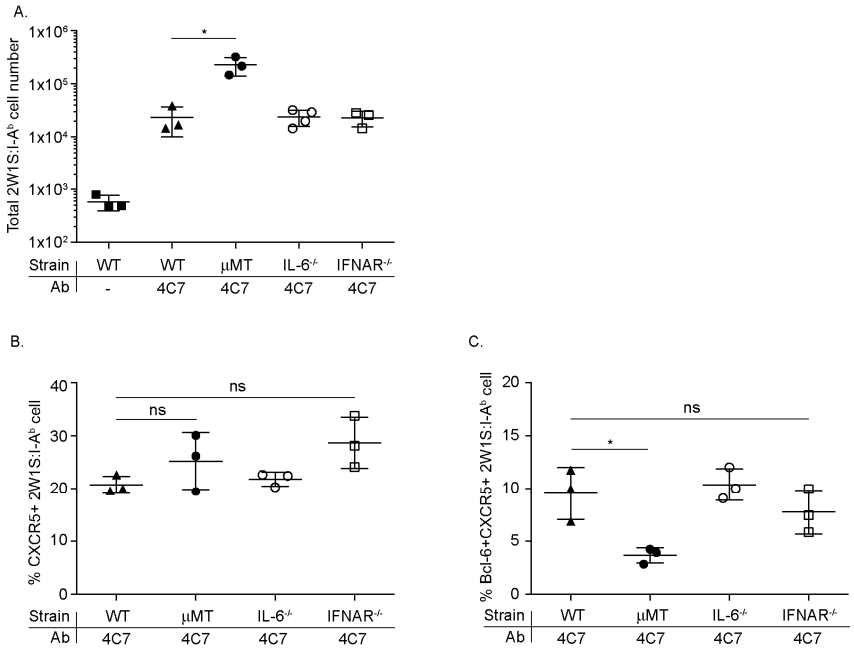

A.
% of Max
CD40
CD86
MHC-II
B.
% of Max
CD40
CD86
MHC-II
C.
2^-Δ Ct (normalized to HPRT)
Tnf
Il1a
Il1b
Il1rn
Il2
Il3
Il4
Il7
Il10
Il12b
Il13
Il15
Il20
Il21
Il24
Il27
Csf1
Fasl
Flt3l
Ifna2
Ifna4
Ifnb1
Ifng
Lif
Lta
Ltb
Mif
Tnfrs11b
Tnfsf12
Tnfsf13
Tnfsf13b
Tnfsf14
Tnfsf15
Tnfsf18
Tnfsf4
Cd70
Tnfsf8
Tnfsf9
D.
2^-Δ Ct (normalized to HPRT)
Tnf
Il1b
Il12b
Il27


A.
WT (2G3-Eα)
huLang (2G3-Eα)
CD44
CFSE
B.
WT (2G3-2W1S)
huLang (2G3-2W1S)
LC-/- (4C7-2W1S)
2W1S:I-Ab


A.
WT (2G3-2W1S)
huLang (2G3-2W1S)
Bcl-6
CXCR5
Non Tfh
Bcl6+ Tfh
Bcl6- Tfh
CD44
T-bet
Gata-3
RORγt
FoxP3


A.
Naive
LC-/- (4C7)
LC-/- (4C7) C. albicans
Tfh
NonTfh
PD-1
CXCR5


A.
Epidermal LC
LN LC
% of Max
AF647
AF647


A.
Total 2W1S:I-Ab cell number
1x10^6
1x10^5
1x10^4
1x10^3
1x10^2
*
Strain WT WT µMT IL-6-/- IFNAR-/-
Ab - 4C7 4C7 4C7 4C7
B.
% CXCR5+ 2W1S:I-Ab cell
40
30
20
10
0
ns
ns
Strain WT µMT IL-6-/- IFNAR-/-
Ab 4C7 4C7 4C7 4C7
C.
% Bcl-6+CXCR5+ 2W1S:I-Ab cell
20
15
10
5
0
ns
*
Strain WT µMT IL-6-/- IFNAR-/-
Ab 4C7 4C7 4C7 4C7