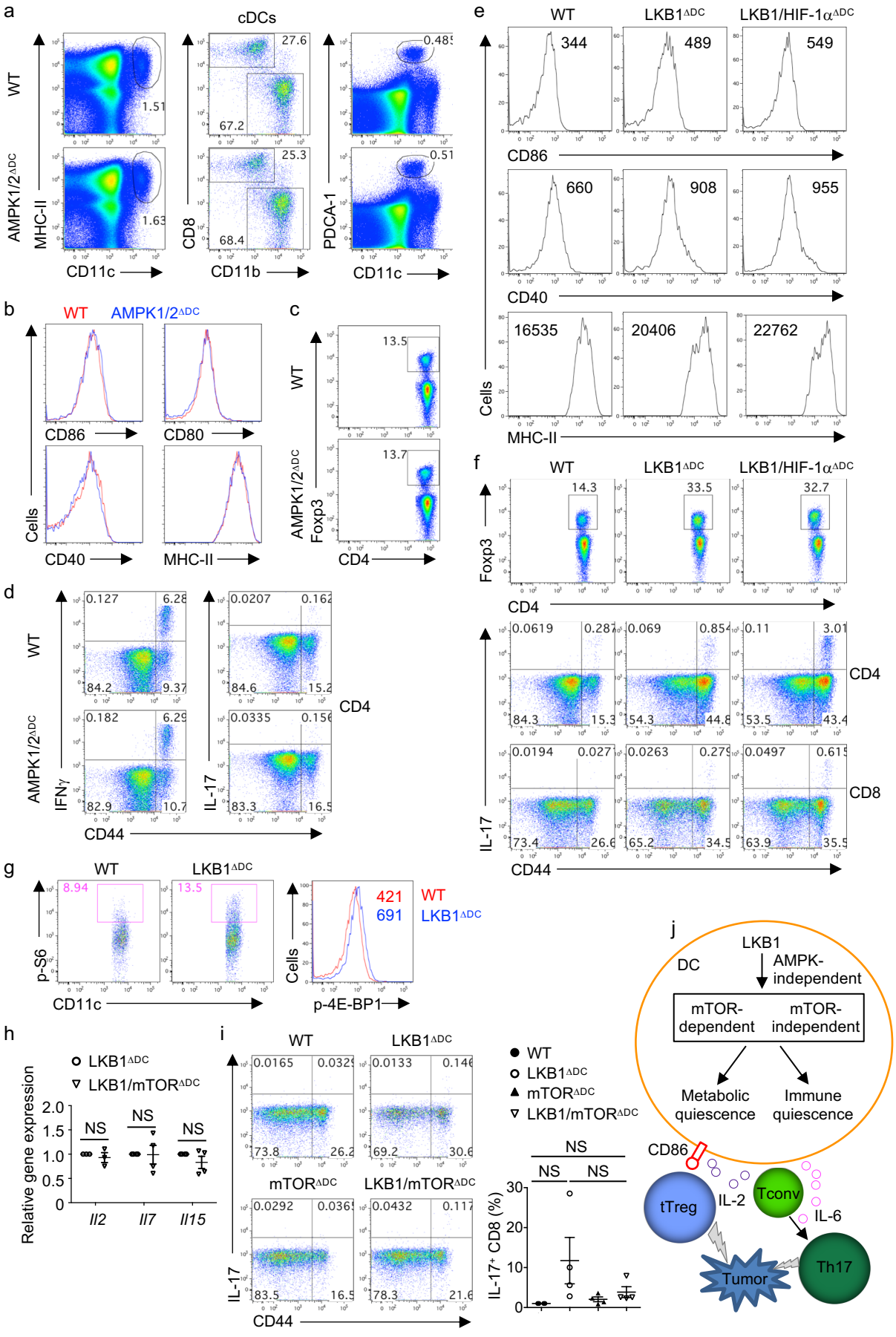
a
cDCs
WT
AMPK1/2ΔDC
MHC-II
CD11c
CD8
CD11b
PDCA-1
1.51
1.63
27.6
67.2
25.3
68.4
0.485
0.51
b
WT
AMPK1/2ΔDC
CD86
CD80
Cells
CD40
MHC-II
c
WT
AMPK1/2ΔDC
Foxp3
CD4
13.5
13.7
d
WT
AMPK1/2ΔDC
IFNγ
IL-17
CD44
CD4
0.127
6.28
84.2
9.37
0.182
6.29
82.9
10.7
0.0207
0.162
84.6
15.2
0.0335
0.156
83.3
16.5
e
WT
LKB1ΔDC
LKB1/HIF-1αΔDC
CD86
CD40
Cells
MHC-II
344
489
549
660
908
955
16535
20406
22762
f
WT
LKB1ΔDC
LKB1/HIF-1αΔDC
Foxp3
CD4
IL-17
CD44
CD8
14.3
33.5
32.7
0.0619
0.287
84.3
15.3
0.069
0.854
54.3
44.8
0.11
3.01
53.5
43.4
0.0194
0.027
73.4
26.6
0.0263
0.275
65.2
34.5
0.0497
0.615
63.9
35.5
g
WT
LKB1ΔDC
p-S6
CD11c
Cells
p-4E-BP1
8.94
13.5
421
691
h
LKB1ΔDC
LKB1/mTORΔDC
Relative gene expression
NS
Il2
Il7
Il15
i
WT
LKB1ΔDC
mTORΔDC
LKB1/mTORΔDC
IL-17
CD44
0.0165
0.0325
73.8
26.2
0.0133
0.146
69.2
30.6
0.0292
0.0365
83.5
16.5
0.0432
0.117
78.3
21.6
WT
LKB1ΔDC
mTORΔDC
LKB1/mTORΔDC
NS
IL-17+ CD8 (%)
j
LKB1
DC
AMPK-independent
mTOR-dependent
mTOR-independent
Metabolic quiescence
Immune quiescence
CD86
tTreg
IL-2
Tconv
IL-6
Tumor
Th17

Supplementary information, Figure S6. LKB1 functions independently of the AMPK and HIF-1α pathways to control DC and T cell homeostasis. a, Flow cytometry analysis of splenic cDC, CD8α$^+$ cDC (CD8α$^+$CD11b$^-$), CD8α$^-$ cDC (CD8α$^-$CD11b$^+$) and pDC populations in WT and AMPK1/2$^{\Delta DC}$ mice. **b**, Flow cytometry analysis of CD86, CD80, CD40 and MHC-II expression on splenic DCs of WT and AMPK1/2$^{\Delta DC}$ mice. **c**, Flow cytometry analysis of splenic Foxp3$^+$CD4$^+$ Tregs in WT and AMPK1/2$^{\Delta DC}$ mice. **d**, Flow cytometry analysis of IFNγ and IL-17 expression in splenic CD4$^+$ T cells from WT and AMPK1/2$^{\Delta DC}$ mice. **e**, Flow cytometry analysis of CD86, CD40 and MHC-II expression on splenic DCs of WT, LKB1$^{\Delta DC}$ and LKB1/HIF-1α$^{\Delta DC}$ mice. **f**, Flow cytometry analysis of splenic Foxp3$^+$CD4$^+$ Tregs and IL-17 expression in splenic CD4$^+$ and CD8$^+$ T cells from WT, LKB1$^{\Delta DC}$ and LKB1/HIF-1α$^{\Delta DC}$ mice. **g**, Flow cytometry analysis of p-S6 and p-4E-BP1 expression in splenic DCs from WT and LKB1$^{\Delta DC}$ mice. **h**, Real-time PCR analysis of gene expression in splenic DCs of LKB1$^{\Delta DC}$ or LKB1/mTOR$^{\Delta DC}$ mice. **i**, Flow cytometry analysis and statistics of IL-17 expression in splenic CD8$^+$ T cells from WT, LKB1$^{\Delta DC}$, mTOR$^{\Delta DC}$, or LKB1/mTOR$^{\Delta DC}$ mice. Data in plots indicate the means ± s.e.m; each symbol represents an individual mouse. Numbers in quadrants or gates indicate percentage of cells; numbers in graphs indicate the mean fluorescence intensity. NS, not significant; two-tailed unpaired Student's *t* test (h) or one-way ANOVA (i). Data are from two (a–g) or four (h, i) independent experiments. **j**, Schematics of LKB1 signaling in DCs for the regulation of immune function. LKB1 signaling enforces metabolic and immune quiescence of DCs to restrict excessive tTreg expansion and Th17 cell differentiation through controlling mTOR activity and IL-6–STAT3 signaling, respectively. LKB1 acts independently of the conventional AMPK and HIF-1α pathways. As a crucial signaling hub in DCs, LKB1 plays an important role in maintaining normal immune homeostasis and anti-tumor immunity.