Appendix Figure Legends

Appendix Figure S1. BKO mouse B cells are hyperactive and hyperproliferative

(A) MFI of MHC II and CD86 activation biomarkers for CD19+ B cells in lymph nodes of WT (n=6) and BKO (n=9) mice. Mean ± SD; **p=0.0022 and *p=0.03 two-tailed, unpaired Student's t test, respectively

(B) MFI of CD69 for CD19+ LKB1+YFP− and LKB1−YFP+ B cells from BKO-YFP mice (n=4). Mean ± SD

(C) Flow cytometry of in vitro cell division over 3 days using Celltracer dye dilution for anti-CD40 Ab plus IL-4 stimulated splenic B cells from WT-YFP and BKO-YFP mice. Plots shown are representative of 3 independent experiments.

(D) Flow cytometry of in vitro cell division over 3 days using Celltracer dye dilution for anti-CD40 Ab plus IL-4 stimulated splenic B cells BKO-YFP mice. (Right panel) The percentage of live LKB1−YFP+ and LKB1+YFP− B cells in each generation is graphed. Mean ± SD for three independent experiments, ***p=0.004 and 0.004 two-tailed, unpaired Student's t test, respectively

(E) (Left panel) Percentage of harvested splenic B cells from WT-YFP and BKO-YFP mice that incorporate BrdU over 2 days and (Right panel) percentage of LKB1+YFP− and LKB1−YFP+ B cells from BKO-YFP mice that incorporate BrdU over 2 days. Mean ± SD from three independent experiments; **p=0.007 two-tailed, unpaired Student's t test

(F) Flow cytometry for the expression of CD44 on CD4+ T cells in the lymph nodes of WT (n=5) and BKO (n=5) mice. Mean ± SD; **p=0.008 by Mann-Whitney U test

Appendix Figure S2. BKO B cells secrete inflammatory cytokines

(A) Cytokine and chemokine array surveyed with conditioned media from unstimulated CD43 depleted B cells from WT and BKO spleens. Mean values are plotted for proteins from two WT and two BKO mice that were increased 1.4-fold or more in BKO versus WT conditioned media

(B) Cytokine profiles of CD43 depleted naïve WT-YFP and naïve BKO-YFP B cells were compared with equivalent numbers of WT B cells stimulated with LPS for 24 hours and BMDM stimulated with LPS for 4 hours by ELISA for RANTES, Mip-1α, MIP-1β, IP-10, and IL-6. Corrected absorbance is shown as mean ± SD (n=3); ****p=0.0001, 1.9E-07, 2.2E-06, 1.5E-05, 7.6E-05, **p=0.0054, 0.0091, and *p=0.034 by two-tailed, unpaired Student's t test, respectively

Appendix Figure S3. LKB1 regulates IL-6 production through NF-κB signaling

(A) Western blot analysis of signaling through ERK1/2 in WT and LKB1− MEFs

(B) Western blot analysis of signaling through p38 in WT and LKB1− MEFs

(C) Western blot analysis of signaling through JNK in WT and LKB1− MEFs

(D) Western blot analysis of signaling to CREB transcription factor in WT and LKB1− MEFs

(E) Western blot analysis of JunB expression in WT and LKB1− MEFs

(F) qRT-PCR analysis of *Il6* expression, relative to *36b4* expression, from LKB1− MEFs treated with DMSO or an escalating concentration of the NF-κB inhibitor JSH-23. Mean ± SEM

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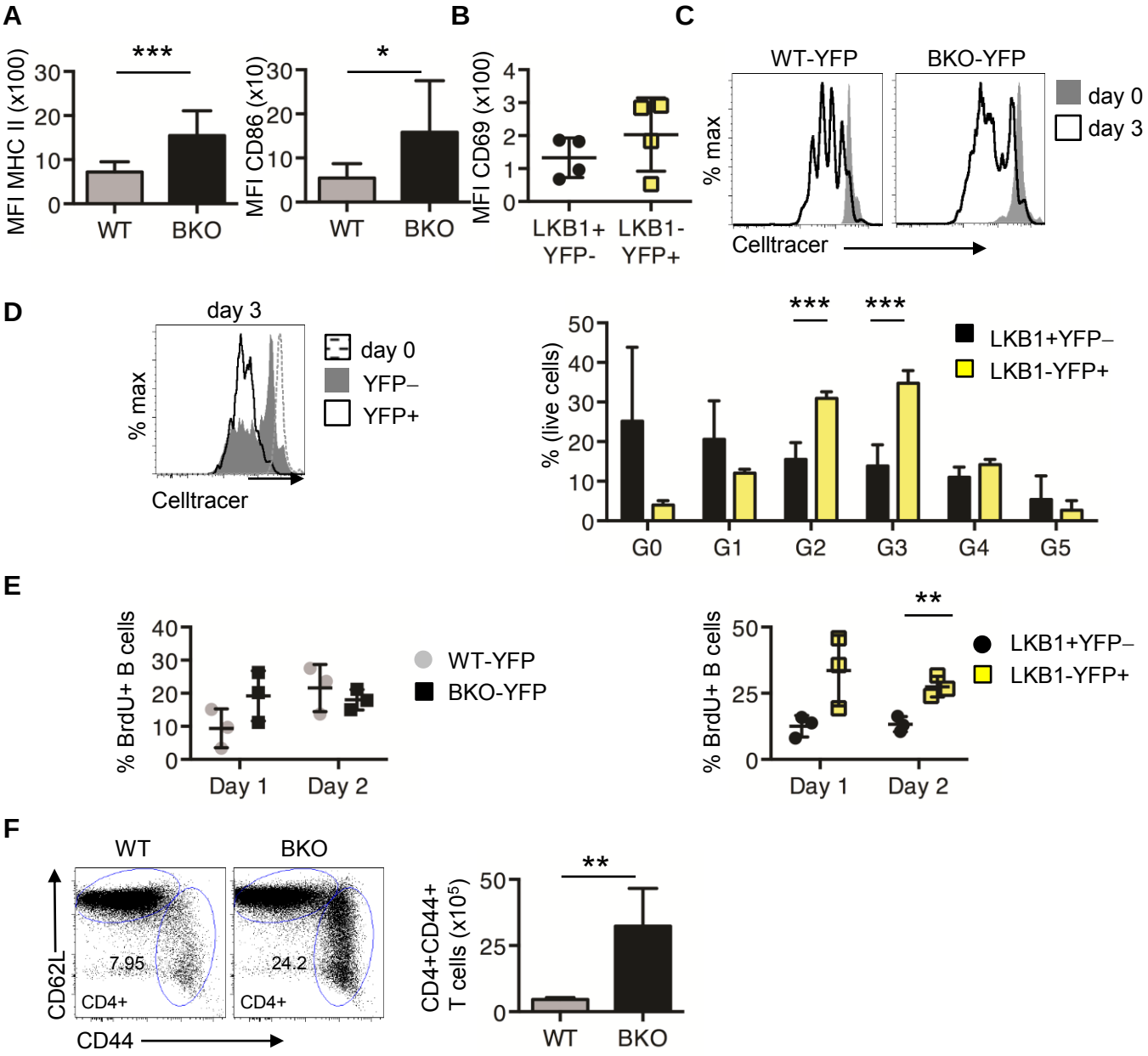
Appendix Figure S1



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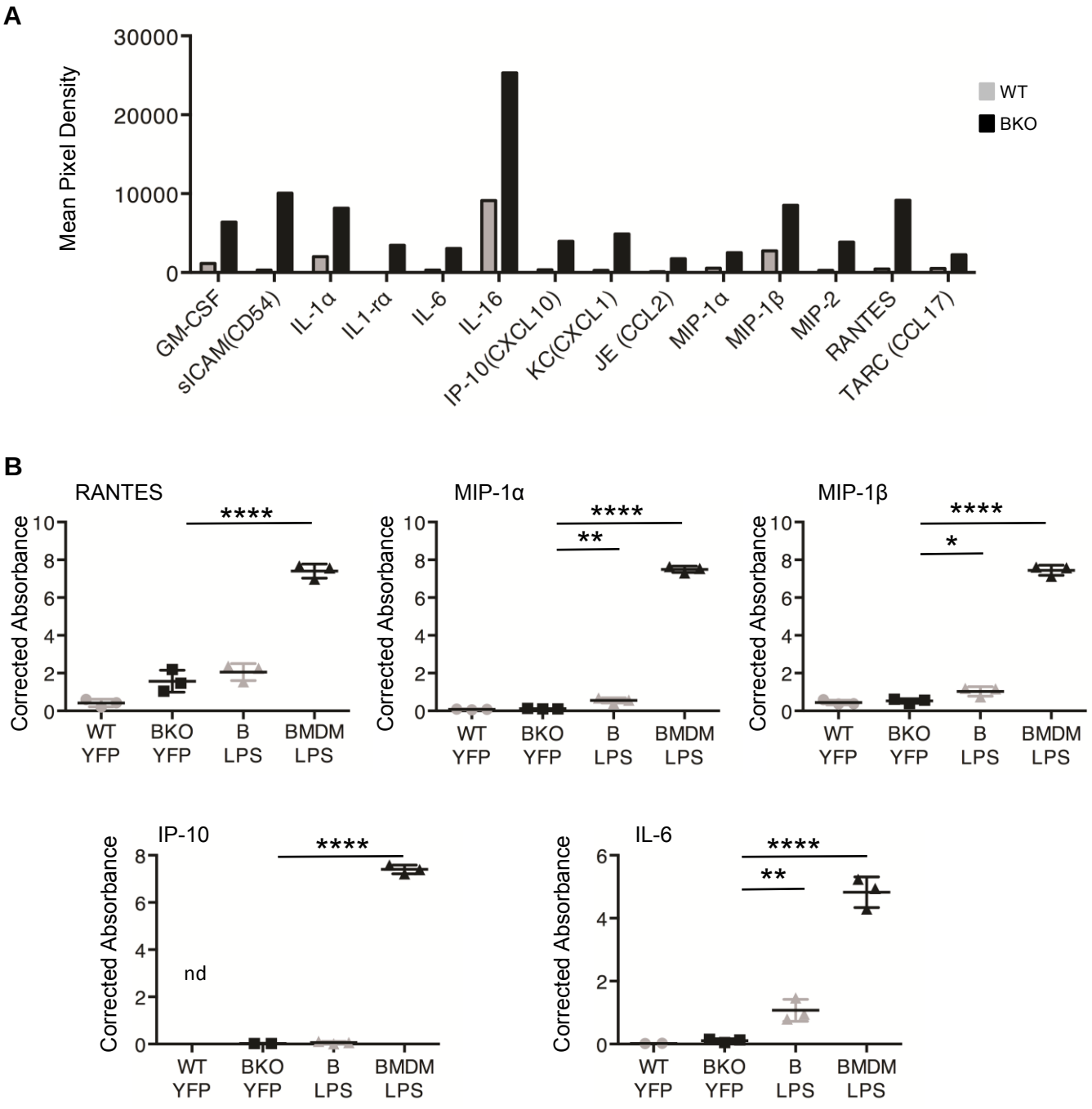
Appendix Figure S2



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Appendix Figure S3