

Supplemental Figure 1. Lymphocyte apoptosis in thymi and lymph nodes of EBOV-infected mice. Wild-type mice were infected with EBOV and analyzed for lymphocyte apoptosis in thymi (A) and lymph node (B) via H&E or TUNEL staining. Scale bar is 100 microns.

Supplemental Figure 2. TRAIL and Fas signaling are not required for EBOV-induced lymphocyte apoptosis. Wild-type, Fas KO, TRAIL KO, or TRAIL/FasL KO mice were infected with EBOV. On day 7, spleens were harvested and stained with TUNEL. A. No apparent difference was noted in the levels of apoptosis in the different groups. B. Quantitation of TUNEL staining was performed using Nikon software. There was no difference in TUNEL staining in the knockouts compared to wild-type. n=8 for WT, n=3 for TRAIL, n=4 for Fas and TRAIL/FasL. C. Spleens from a separate experiment were analyzed for apoptosis by flow cytometry after TUNEL staining. Shown is the percentage of cells in the lymphocyte gate that were TUNEL positive. n=3 for WT, n=9 for TRAIL, and n=6 for TRAIL/FasL. No inhibition of lymphocyte apoptosis was shown in the knockout mice.

Supplemental Figure 3. Bim/Bid knockout mice have reduced lymphocyte apoptosis after EBOV infection. Wild-type or Bim/Bid knockout mice were infected with EBOV, and H&E sections were analyzed for lymphocyte apoptosis. Note the “moth-eaten” appearance of wild-type spleens at low-magnification (A) and pyknotic nuclei at high-magnification (B) compared to Bim/Bid spleens. In wild-type splenic section in (A), there is also loss of a defined sharp white pulp to red pulp border consistent with extensive depletion of lymphocytes in the white pulp.

The splenic section of the wild type mouse in (B) shows massive apoptosis with many cells demonstrating pyknosis and karyorrhexis.

Supplemental Figure 4. Viral replication and CD8+ T cell activation in vav-bcl-2 mice. A.

Viremia was determined in EBOV-infected wild-type and vav-bcl-2 mice. There was increased viremia in vav-bcl-2 mice. n=11-12. * $p \leq 0.05$. **B.** Splenocytes from day 7 wild-type or vav-bcl-2 mice were incubated with two EBOV peptides known to be CD8+ T cell epitopes, or with a Marburg peptide as a control. IFN-gamma production in CD3+ CD8+ T cells was determined using flow cytometry. n=7-8. * $p \leq 0.05$ relative to Marburg control. ** $p \leq 0.05$ comparing wild-type and vav-bcl-2 responses to EBOV peptides.

Supplemental Figure 5. TUNEL staining in livers from infected bim/bid knockout mice.

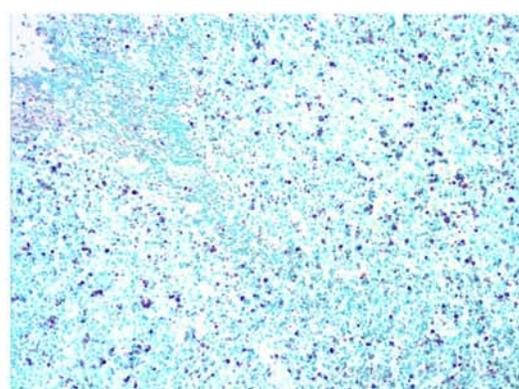
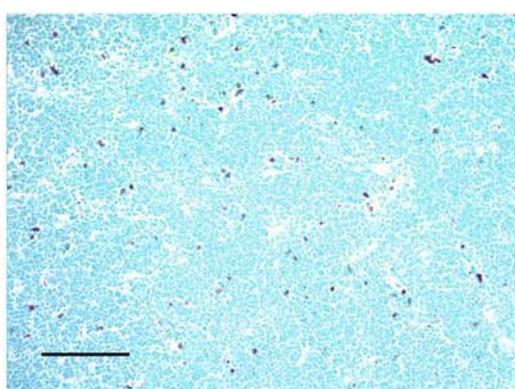
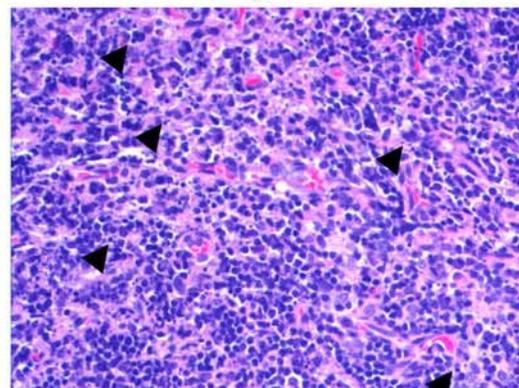
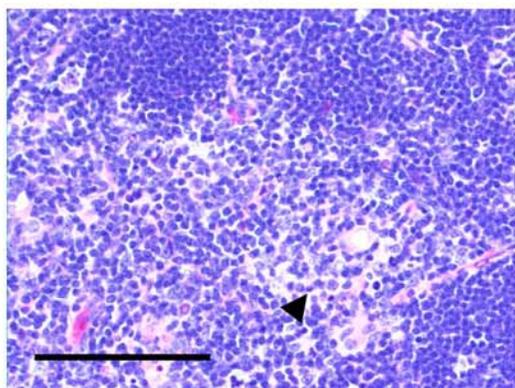
Bim/bid knockout mice and wild-type mice were infected with EBOV. On day 7, livers were processed and TUNEL-stained. Decreased apoptosis is seen in bim/bid livers. Scale bar is 100 microns.

Thymus

A.

Day 0

Day 7

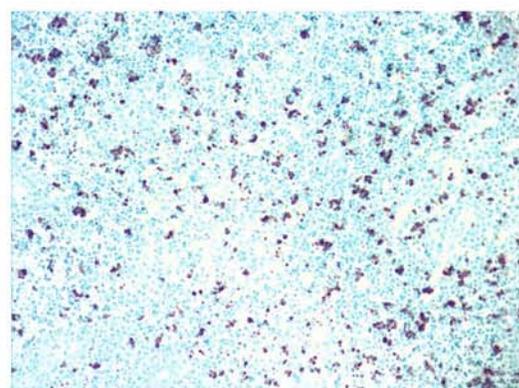
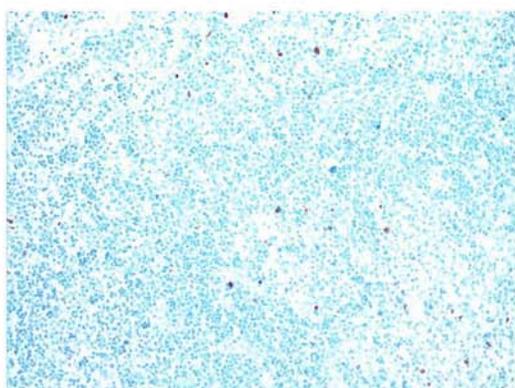
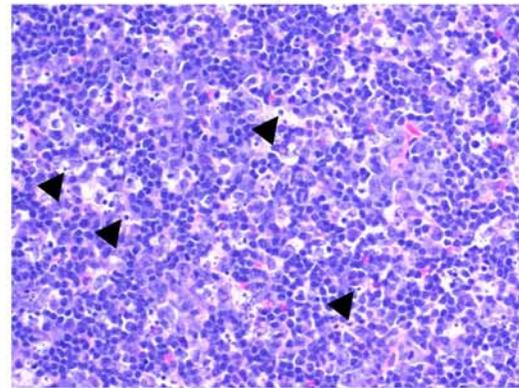
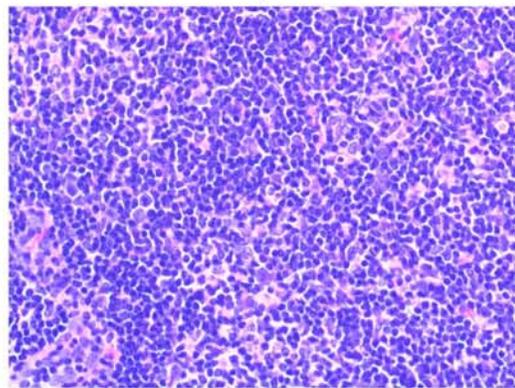


B.

Lymph Node

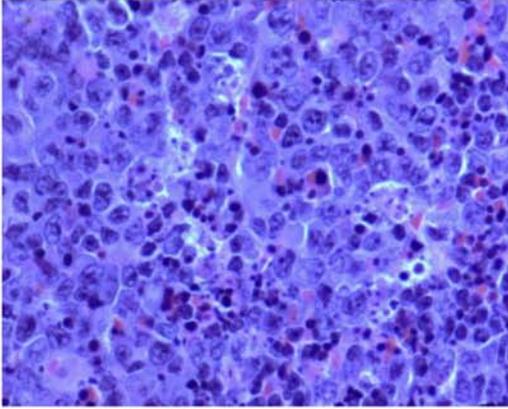
Day 0

Day 7

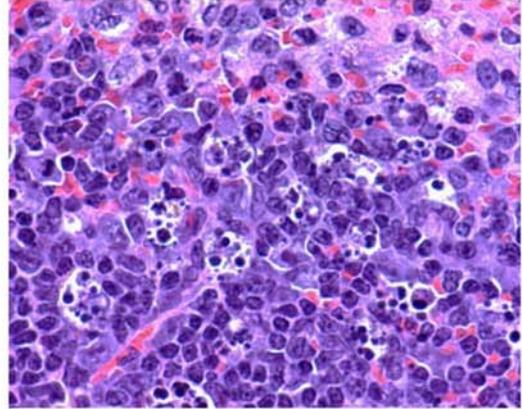


A.

Wild-type



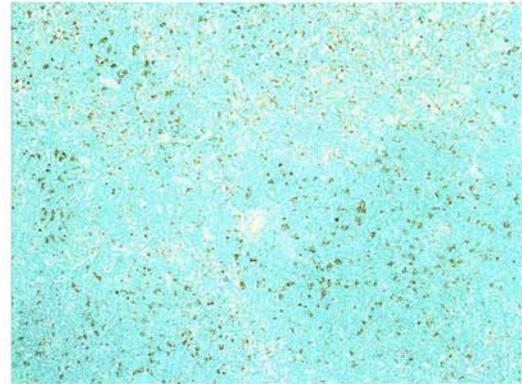
TRAIL/FasL



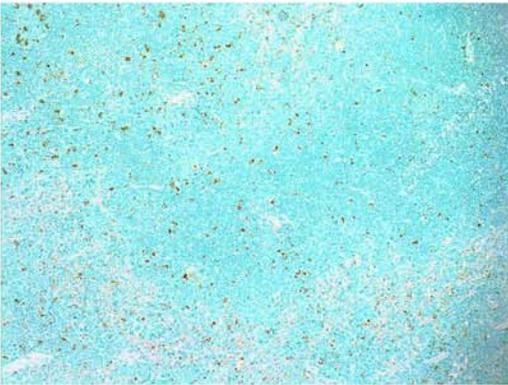
Wild-type



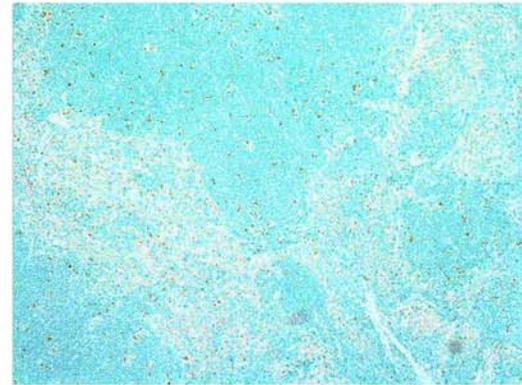
Fas



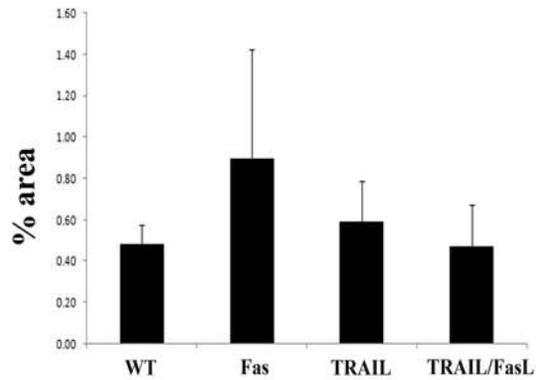
TRAIL



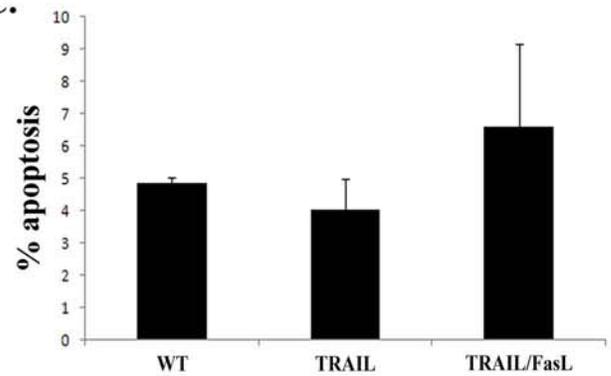
TRAIL/FasL



B.



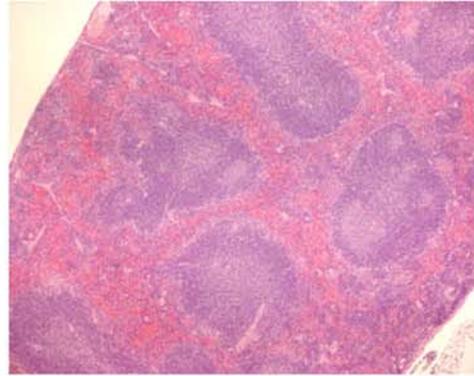
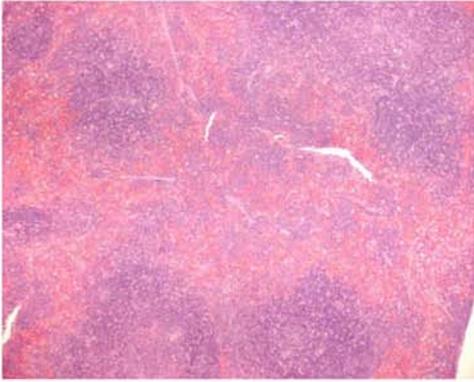
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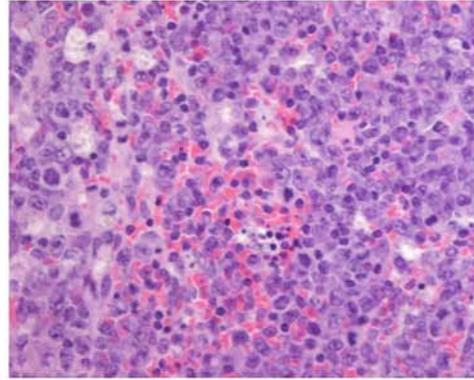
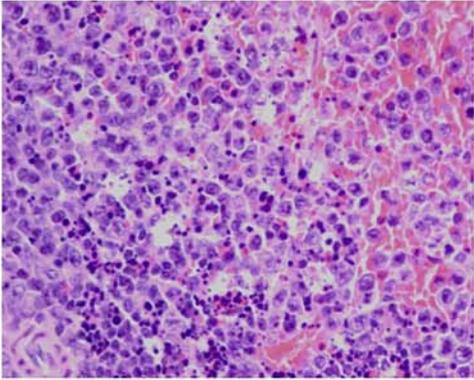
Wild-type

Bim/Bid

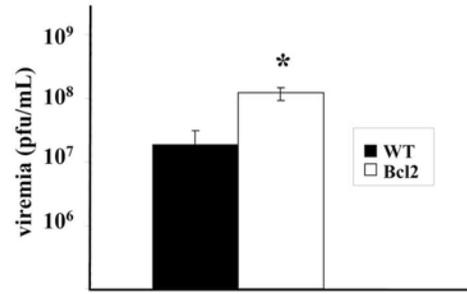
A.



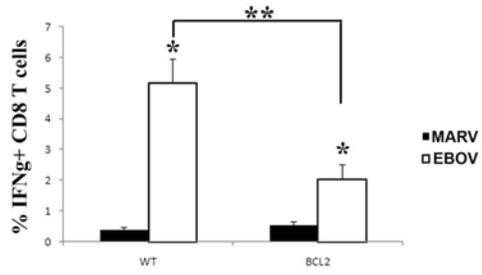
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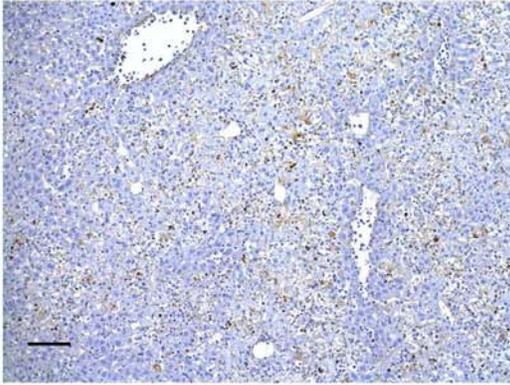
A.



B.



Wild-type



Bim/Bid

