

**Figure S1: Hif-1 dependence of angiogenic gene expression in** *Vhlh* **deficient thymi.** Expression analysis of *Vegf-A*, *Vegf* receptors *Flt-1* and *-4* and endothelial cell markers *CD-31* and *endoglin* by RPA using total RNA.



Fig. S2



**Figure S2:** Hif-2*α* is non-detectable in nuclear fraction from *Vhlh*<sup>-/-</sup> thymocytes. (A) Cytoplasmic trapping of Hif-2*α* in *Vhlh* deficient thymocytes. Shown are protein levels of Hif-1*α* and Hif-2*α* in cytoplasmic (C) and nuclear fractions (N) using Western blot analysis. Staining with Ponceau S is shown to demonstrate equal loading. Cytoplasmic PI3 kinase was used to assess nuclear fraction purity. (B) *Hif-2α* mRNA levels are induced in *Vhlh*<sup>-/-</sup> thymocytes in a Hif-1 dependent manner. Shown are results from semi-quantitative RT-PCR studies in FACS sorted DP thymocytes. β-actin is used to normalize mRNA.



**Figure S3:** *BCL-2* transgene expression in *Vhlh<sup>-/-</sup>* thymocytes. Human BCL-2 transgene expression in mutant and control mice by Western blot using a species-specific anti-human BCL-2 antibody.





Figure S4: Inhibition of caspase-9 or granzyme-B does not prevent thymocyte death *in vitro*. Shown is the percentage of viable cells in cultures of control and *Vhlh* deficient thymocytes treated for 24hr with (A) caspase-9 inhibitor zLEHD-fmk and (B) Granzyme B inhibitor zAAD-cmk. Viability was assessed with 7-AAD staining. DMSO treated cells were used as control (Con). Shown are the mean values  $\pm$  SD for n= 3 mice, individual experiments were carried out in triplicates.

