## **Description of Additional Supplementary Files**

Supplementary Data 1

Association of abnormal expression of Regnase-1 (ZC3H12A) mRNA and prognosis of cancer patients

Supplementary Data 2 List of primer and Oligonucleotide sequences.

Supplementary Data 3 Result of RNA-seq analysis of CD34<sup>-</sup> HSCs from Vav1-iCre; Reg1<sup>flox/flox</sup> mice (KO) and control Reg1<sup>flox/flox</sup> mice (Control).

Supplementary Data 4 The gene sets identified by RNA-seq analysis used for the gene ontology analysis in Figure 2j.

Supplementary Data 5 RNA-seq data in Figure 5g,h Pre-defined gene sets which are related to leukemia used for the gene set enrichment analysis in Figure 5g,h.

Supplementary Data 6 Summarized results of gene set enrichment analysis in Figure 5g,h.