Figure S1. Sequence alignment between mouse and human HS-E1
Mouse (top line) and human (bottom line) genomic DNA sequences from the region to which HS-E1 maps in both species were aligned using Pipmaker (http://pipmaker.bx.psu.edu/pipmaker/).[22] Coordinates for the mouse sequence refer to the transcription start site for the mouse εy-globin gene, in which the first A in the sequence "GTACGTACTTGCTTCTG" is defined as +1. Coordinates for the human sequence refer to the transcripton start site for the human ε-globin gene, in which the first A in the sequence "GCACATATCTGCTTCCG" is defined as +1.

Figure S2. Blood cytospins comparing wild type and mutant peripheral blood from E12.5 litter mates
Representative Wright stain microscope fields from two wild type (WT) and two mutant (ΔHS-E1) littermates show no gross differences in red cell maturation and morphology. Cells were cytospun (Shandon cytospin II, Thermo-Scientific, Waltham, MA) on plain glass slides, Wright stained (Sigma Aldrich WSHT), and mounted with Permount. Images were acquired on a Nikon DS-Fi1 camera on a Nikon Eclipse 80i microscope (Nikon, Chiyoda-ku, Tokyo, Japan) using Nikon Plan Fluor objective lens (Nikon, 20× magnification, 0.5 NA). Images were processed by Nikon Elements software for white balance and brightness. The scale bars in the lower right corners of each panel indicate 50 μm.

Figure S1

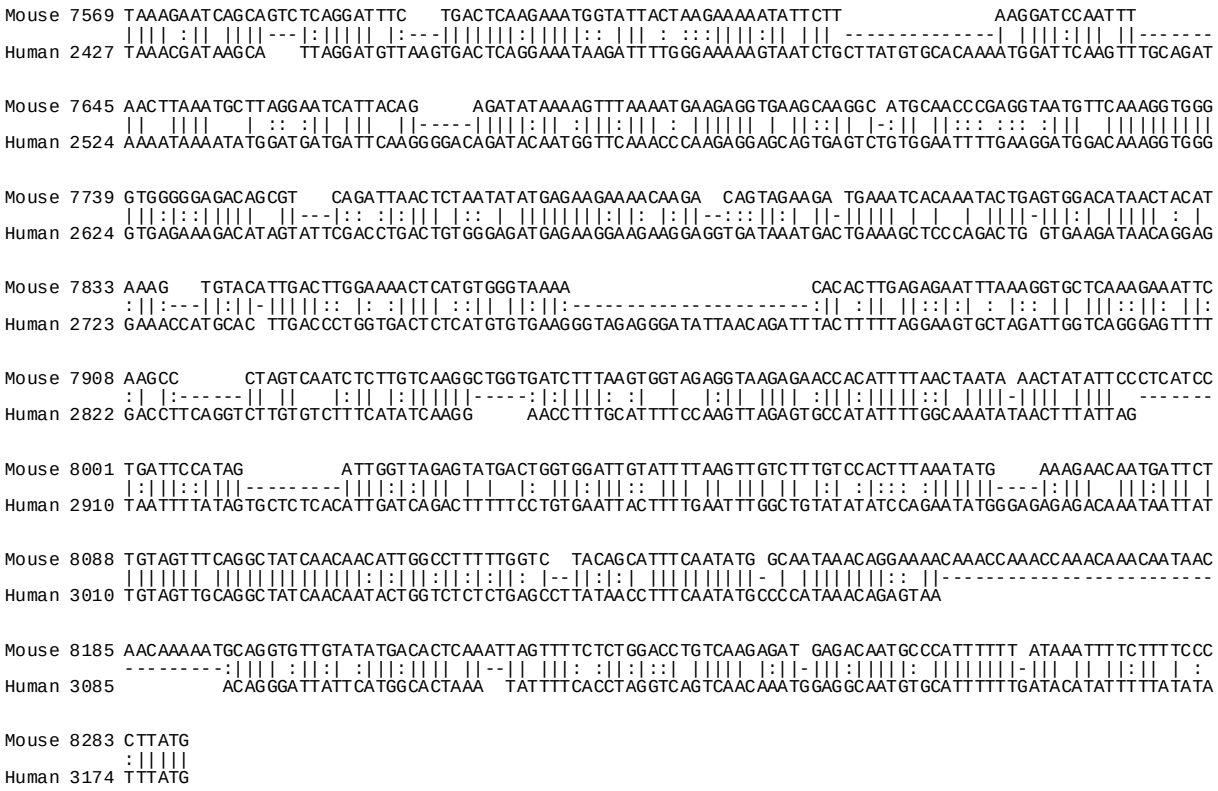
Mouse 7569 TAAAGAATCAGCAGTCTCAGGATTTC TGACTCAAGAAATGGTATTACTAAGAAAAATATTCTT AAGGATCCAATTT
Human 2427 TAAACGATAAGCA TTAGGATGTTAAGTGACTCAGGAAATAAGATTTGGGAAAAAGTAATCTGCTTATGTGCACAAAATGGATTCAAGTTTGCAGAT
Mouse 7645 AACTTAAATGCTTAGGAATCATTACAG AGATATAAAAGTTTAAAATGAAGAGGTGAAGCAAGGC ATGCAACCCGAGGTAATGTTCAAAGGTGGG
Human 2524 AAAATAAAATATGGATGATGATTCAAGGGGACAGATACAATGGTTCAAACCCAAGAGGAGCAGTGAGTCTGTGGAATTTTGAAGGATGGACAAAGGTGGG
Mouse 7739 GTGGGGGAGACAGCGT CAGATTAACTCTAATATATGAGAAGAAAACAAGA CAGTAGAAGA TGAAATCACAAATACTGAGTGGACATAACTACAT
Human 2624 GTGAGAAAGACATAGTATTCGACCTGACTGTGGGAGATGAGAAGGAAGAAGGAGGTGATAAATGACTGAAAGCTCCCAGACTG GTGAAGATAACAGGAG
Mouse 7833 AAAG TGTACATTGACTTGGAAAACTCATGTGGGTAAAA CACACTTGAGAGAATTTAAAGGTGCTCAAAGAAATTC
Human 2723 GAAACCATGCAC TTGACCCTGGTGACTCTCATGTGTGAAGGGTAGAGGGATATTAACAGATTTACTTTTTAGGAAGTGCTAGATTGGTCAGGGAGTTTT
Mouse 7908 AAGCC CTAGTCAATCTCTTGTCAAGGCTGGTGATCTTTAAGTGGTAGAGGTAAGAGAACCACATTTTAACTAATA AACTATATTCCCTCATCC
Human 2822 GACCTTCAGGTCTTGTGTCTTTCATATCAAGG AACCTTTGCATTTTCCAAGTTAGAGTGCCATATTTTGGCAAATATAACTTTATTAG
Mouse 8001 TGATTCCATAG ATTGGTTAGAGTATGACTGGTGGATTGTATTTTAAGTTGTCTTTGTCCACTTTAAATATG AAAGAACAATGATTCT
Human 2910 TAATTTTATAGTGCTCTCACATTGATCAGACTTTTTCCTGTGAATTACTTTTGAATTTGGCTGTATATATCCAGAATATGGGAGAGAGACAAATAATTAT
Mouse 8088 TGTAGTTTCAGGCTATCAACAACATTGGCCTTTTTGGTC TACAGCATTTCAATATG GCAATAAACAGGAAAACAAACCAAACCAAACAAACAATAAC
Human 3010 TGTAGTTGCAGGCTATCAACAATACTGGTCTCTCTGAGCCTTATAACCTTTCAATATGCCCCATAAACAGAGTAA
Mouse 8185 AACAAAAATGCAGGTGTTGTATATGACACTCAAATTAGTTTTCTCTGGACCTGTCAAGAGAT GAGACAATGCCCATTTTTTT ATAAATTTTCTTTTCCC
Human 3085 ACAGGGATTATTCATGGCACTAAA TATTTTCACCTAGGTCAGTCAACAAATGGAGGCAATGTGCATTTTTTGATACATATTTTTATATA
Mouse 8283 CTTATG
Human 3174 TTTATG

Figure S2