Supplementary Methods

Bone marrow transplantation to lethally irradiated mice. 1–2 million bone marrow cells from two to three week–old *Nor-1*$^{-/-}$*Nur77*$^{-/-}$ mice or *Nor1*$^{+/+}$*Nur77*$^{-/-}$ healthy littermates were suspended in phosphate-buffered saline (PBS) and injected into the tail vein of 13 Gy lethally irradiated 6–8 week recipient B6129SF1/J F1 generation mice (The Jackson Laboratory). Mice were visually monitored and sacrificed for analysis upon outward signs of disease.

Flow cytometry. Lineage markers used in this study included fluorescein isothiocyanate (FITC), phycoerythrin (PE), or phycoerythrincyanine 5 (PC5) conjugated antibodies (from Pharmingen or eBioscience) against CD11b (M1/70), Gr-1 (RB6-8C5), CD4 (L3T4), CD8 (53-6.7), CD19 (1D3), B220 (RA3-6B2). Other monoclonal antibodies included FITC conjugated CD34 (RAM34, eBioscience), PE conjugated Sca-1 (D7, eBioscience), PE-Cy5 conjugated IL–7R (A7R34, eBioscience), and allophycocyanin (APC, eBioscience) conjugated c-kit (2B8, eBioscience), biotinylated antibody against Flk2 (A2F10, eBioscience), and strepavidin-PE-Texas red conjugate (Pharmingen).

DNA content analysis. Cells were stained with FITC conjugated CD11b antibodies (Caltag), fixed in ice cold 70% ethanol and suspended in PI/RNase Staining buffer (Pharmingen) for 30 min, followed by flow cytometer analysis.

Apoptosis analysis. Bone marrow cells (1 X 10^7 cells per milliliter) were stained with Fc RII/II (2.4 G2, Pharmingen) for 15 min on ice, followed by PE-conjugated Gr-1 (RB6-8C5, eBiosciences) and PE-Cy7-conjugated CD11b (M1/70, Pharmingen) staining for 30

min at 4˚C. Cells were washed with PBS, and resuspended in Annexin V binding buffer (Pharmingen) at 1 X 10^6 cells per milliliter, and then incubated with FITC-conjugated Annexin V (Pharmingen) at room temperature for 15 min in dark, followed by flow cytometer analysis.

Rea-time quantitative PCR for human samples. Total RNA from bulk marrow or sorted cells were isolated by Trizol (Invitrogen), and purified by RNeasy ion-exchange column (Qiagen) with on-column DNAse treatment. cDNA were then synthesized using SuperScript III (Invitrogen) with ten minutes incubation at 25˚C, then one hour at 50˚C, followed by heat-inactivation of the enzyme for 15 min at 72 ˚C. Real time PCR was carried out using an ABI Prism 7700 instrument. The primer and probe sequences used for human *NUR77* are as follows: forward 5'-cttccctggtccttgcacac-3', reverse 5'-caccagctcctggaacttgg-3', probe 5'-tcagggcc cagcactgccaaac-3'. Primers and probes for detecting human *NOR-1*, and human *-2-microglobulin* were purchased from TaqMan Gene Expression Assays (Applied Biosystems). The abundance of *NUR77* and *NOR-1* transcript relative to that of -2-microglobulin was calculated as follows: relative expression (RE) =100 x 2 exp [- Ct], where Ct is the mean Ct of *NUR77* and *NOR-1* less than the mean Ct of the transcript for *-2-microglobulin*.