Purton et al., http://www.jem.org/cgi/doi/10.1084/jem.20052105

Retroviral gene transfer of 5-FU bone marrow cells. The MXIE vector was a gift from D. Kohn (Children's Hospital, Los Angeles, CA). Stable GP+E-86 packaging cell lines generating MXIE vectors (Engel, B.C., G. Bauer, K.A. Pepper, D.C. Bockstoce, X.J. Yu, S.Y. Chen, and D.B. Kohn. 2000. *Mol. Ther.* 1:165–170) containing no cDNA (control), human RARα or human RARγ1 cDNA (Robertson, K.A., B. Emami, L. Mueller, and S.J. Collins. 1992. *Mol. Cell Biol.* 12:3743–3749) were created. BM cells were obtained from mice 4 d after 5-fluorouracil-treatment (150 mg/kg) and were transduced with the different vectors using similar methods to those described previously (Sauvageau, G., U. Thorsteinsdottir, C.J. Eaves, H.J. Lawrence, C. Largman, P.M. Lansdorp, and R.K. Humphries. 1995. *Genes Dev.* 9:1753–1765.), but were cultured in Iscove's modified essential medium supplemented with 20% FBS and 100 ng/ml each of rmSCF, rhFtl-3L, rhIL-6, and 10 ng/ml rhIL-11. Cell proliferation was monitored at weekly intervals. Cells were phenotyped with various hematopoietic markers at 4 wk of culture as described previously (Purton, L.E., I.D. Bernstein, and S.J. Collins. 1999. *Blood.* 94:483–495).

For studies examining the expression of different genes in RARα and RARγ1 overexpressing cells, BM cells were transduced as described in the previous paragraph. Immediately after 48 h of transduction, Sca-1$^+$ cells expressing GFP$^+$ and lacking lineage expression were sorted and processed for cDNA.