



Supporting Information Figure 3. Genetic chimerism evaluated by Southern blot analysis.

Example of a Southern blot performed on genomic DNA extracted from five organs of two *Rb1^{F/F};Trp53^{F/F}* chimeras to determine the level of genetic chimerism with a probe that distinguishes between a wildtype *Trp53* allele (13 Kb) or the floxed *Trp53* allele (8 Kb) reflecting the contribution by the host ESCs or cultured ESCs, respectively. Controls were genomic DNA extracted from a spleen of a wildtype mouse and genomic DNA of an F1 offspring of an *Rb1^{F/F};Trp53^{F/F}* chimera, therefore having one conditional *Trp53* allele and one wildtype *Trp53* allele.