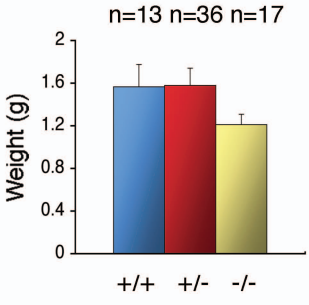
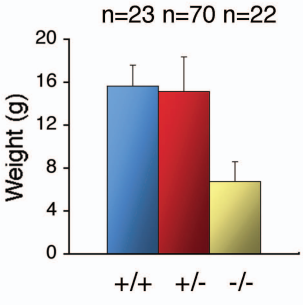
A

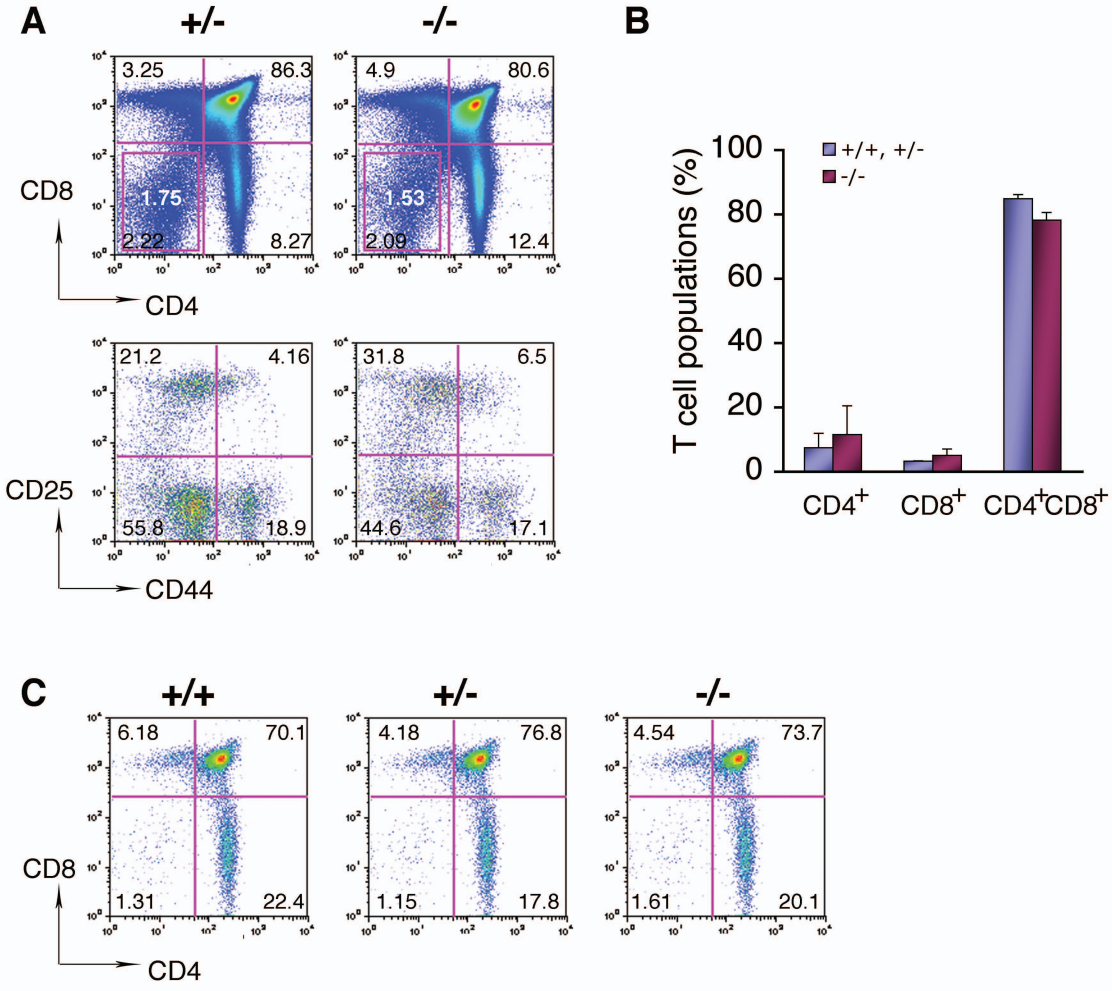
B



C



Supplement Figure S1

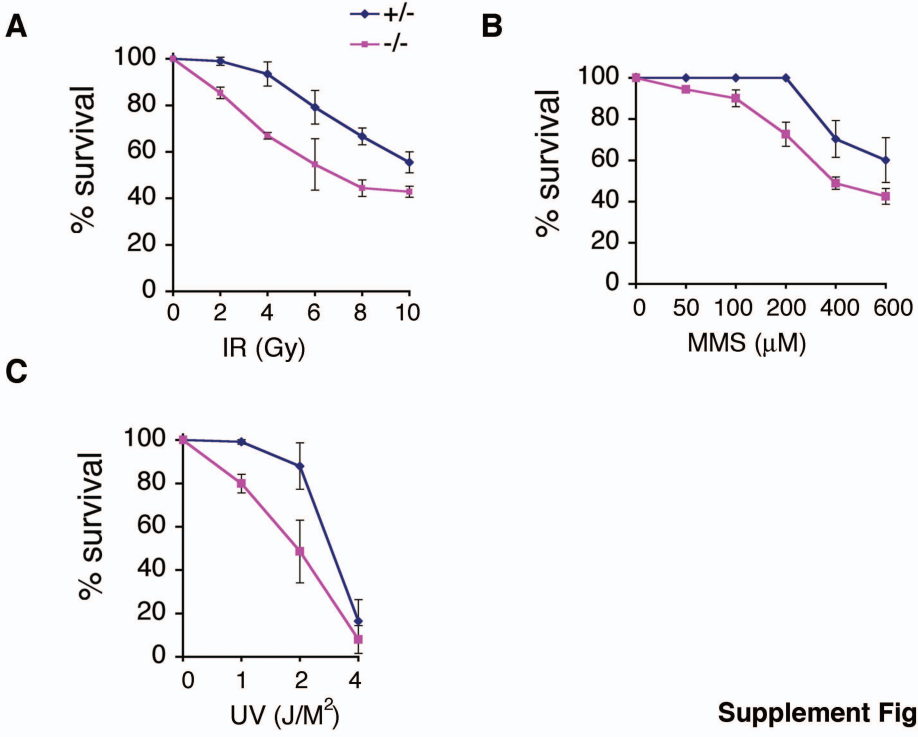


D

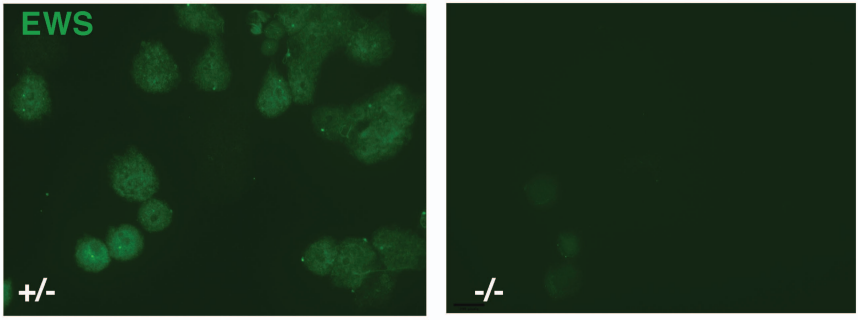
Absolute number of donor-derived T cells ($x10^6$)

	+/+, +/- (n=6)	-/- (n=4)
$CD4^+$	18.09±3.44	18.32±6.19
$CD8^+$	4.61±0.92	3.98±1.32
$CD4^+CD8^+$	65.74±25.19	51.11±31.15

Supplement Figure 2



Supplement Figure S3



Supplement Figure S4

Supplement Figure 1. *Ews*-/- mice die postnatally and show growth retardation.
(A) Photograph of postnatal day 0.5 (P0.5) wildtype and *Ews*-/- littermate pups. (B) Body weight measurement of *Ews*+/+, *Ews*+/-, and *Ews*-/- littermates at P0.5. (C) Body weight measurement of *Ews*+/+, *Ews*+/-, and *Ews*-/- littermates at P21.

Supplement Figure 2. Analysis of T cell development in *Ews* -/- mice.
(A) Thymocytes from 3-week-old *Ews* -/- and littermate controls were stained for CD4, CD8, CD25 and CD44. Analysis of CD4 and CD8 is shown on the top panel. Gating on the $CD4^-CD8^-$ population, the proportion of $CD25^-CD44^+$ (DN1), $CD25^+CD44^+$ (DN2), $CD25^+CD44^-$ (DN3) and $CD25^-CD44^-$ (DN4) cells is depicted on the bottom. (B) Percentage of $CD4^+$, $CD8^+$ and $CD4^+CD8^+$ cells (n=3 for controls and *Ews*-/-). (C-D) Fetal liver chimera analysis. (C) Donor-derived thymocytes were stained for CD4 and CD8 and analyzed by flow cytometry. Representative data are presented from four separate experiments analyzing four *Ews* -/- and six control recipients. (D) Absolute number of donor-derived $CD4^+$, $CD8^+$ and $CD4^+CD8^+$ T cells are shown.

Supplement Figure 3. Hypersensitivity of *Ews*-/- MEFs to DNA damage.
Litter-matched *Ews*+/- and *Ews*-/- MEFs were subjected to various doses of IR (A), UV (B) and methyl methanesulfonate (MMS) (C) as indicated, and cell viability was determined 1 week after the treatment. Results are an average of 3 independent cell lines per genotype performed in duplicate.

Supplement Figure 4. Immunofluorescent microscopy of EWS in spermatocytes. Spermatocyte spreads of *Ews*+/- and *Ews*-/- spermatocytes were stained with affinity-purified antibody against EWS, followed by FITC-labeled secondary antibody.