Expanded View Figures

Figure EV1. Characterization of KL25 × Eμ-TCL1, VI10YEN × Eμ-TCL1, and D_HLMP2A × Eμ-TCL1 mice.

A TCL1 expression in the spleen of 8-week-old WT (gray), Eμ-TCL1 (black), KL25 × Eμ-TCL1 (red), VI10YEN × Eμ-TCL1 (blue), and D_HLMP2A × Eμ-TCL1 (green) male mice analyzed by RT–qPCR. $n = 3$. Data are representative of more than three independent experiments.

B Concentration of $CD5^+$ $CD19^+$ cells per ml of blood and peritoneal wash of 8-week-old WT (gray), Eμ-TCL1 (black), KL25 × Eμ-TCL1 (red), VI10YEN × Eμ-TCL1 (blue), and D_HLMP2A × Eμ-TCL1 (green) male mice. $n = 6$ (WT), 8 (Eμ-TCL1), 9 (KL25 × Eμ-TCL1), 8 (VI10YEN × Eμ-TCL1), and 9 (D_HLMP2A × Eμ-TCL1).

C Absolute numbers of $CD5^+$ $CD19^+$ cells in the indicated organs of the same mice described in (B).

D Representative flow cytometry plots showing transgenic BCR expression in B1a ($CD19^+$ $CD5^+$ $CD23^-$), B1b ($CD19^+$ $CD5^-$ $CD23^-$), and B2 ($CD19^+$ $CD5^-$ $CD23^+$) cells from 8-week-old WT (top panel) and KL25 × Eμ-TCL1 (bottom panel) male mice. Results are representative of more than 10 independent experiments.

E Representative flow cytometry plots showing transgenic BCR expression in B1a ($CD19^+$ $CD5^+$ $CD23^-$), B1b ($CD19^+$ $CD5^-$ $CD23^-$), and B2 ($CD19^+$ $CD5^-$ $CD23^+$) cells from 8-week-old WT (top panel) and VI10YEN × Eμ-TCL1 (bottom panel) male mice. Results are representative of more than 10 independent experiments.

F, G Representative flow cytometry plots showing proliferation (assessed by CFSE dilution, left panels) and activation (assessed by CD25 and CD69 upregulation, middle and right panels, respectively) of KL25 × Eμ-TCL1 (F) or VI10YEN × Eμ-TCL1 (G) B cells exposed or not to inactivated LCMV or VSV, respectively. Results are representative of three independent experiments.

Data information: Results are expressed as mean + SEM. $*P < 0.05$, $**P < 0.01$, $***P < 0.001$. Exact *P*-values for each experiment are reported in Appendix Table S1. One-way ANOVA (Bonferroni's multiple comparison) was used in (A–C).
Source data are available online for this figure.

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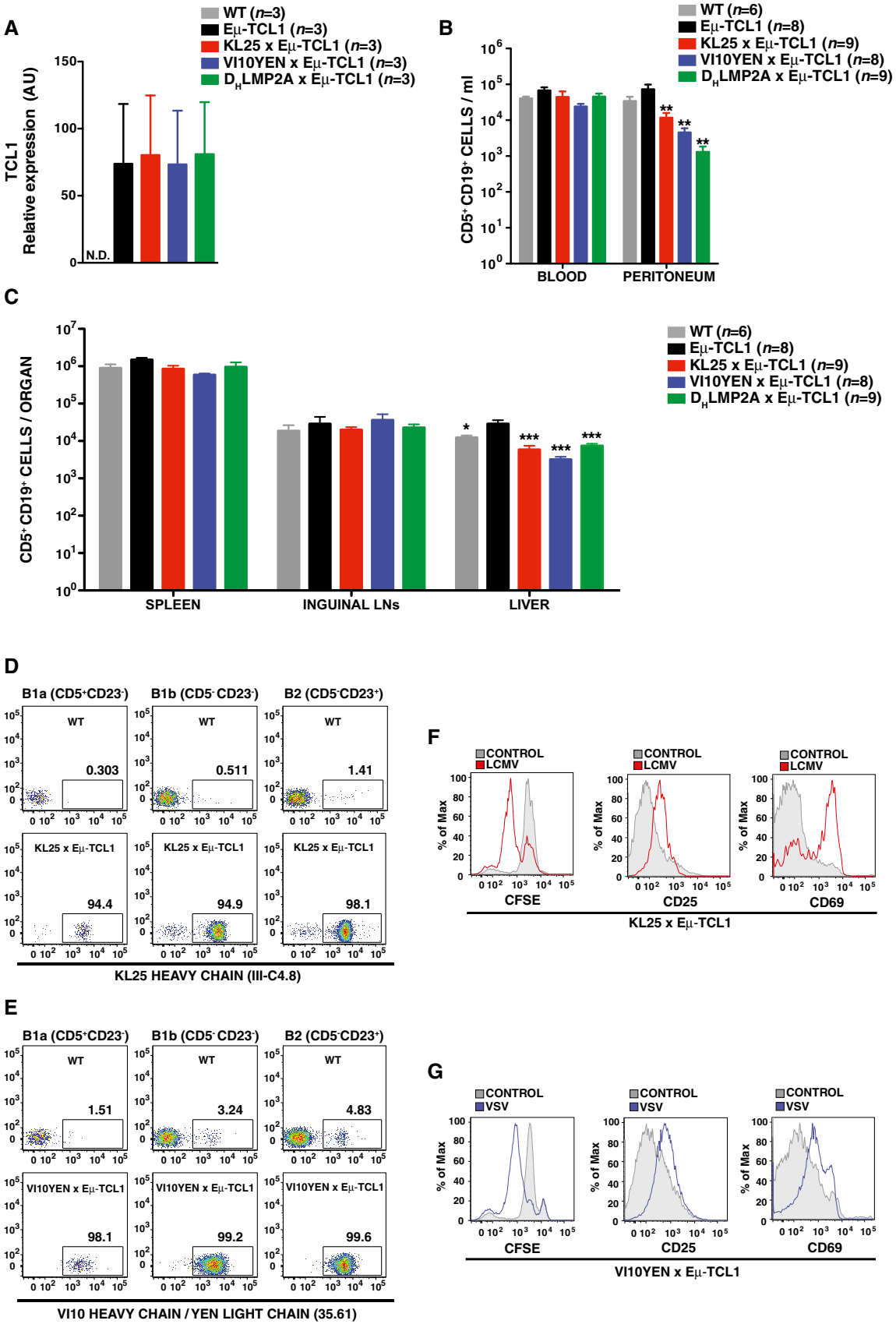

Figure EV1.

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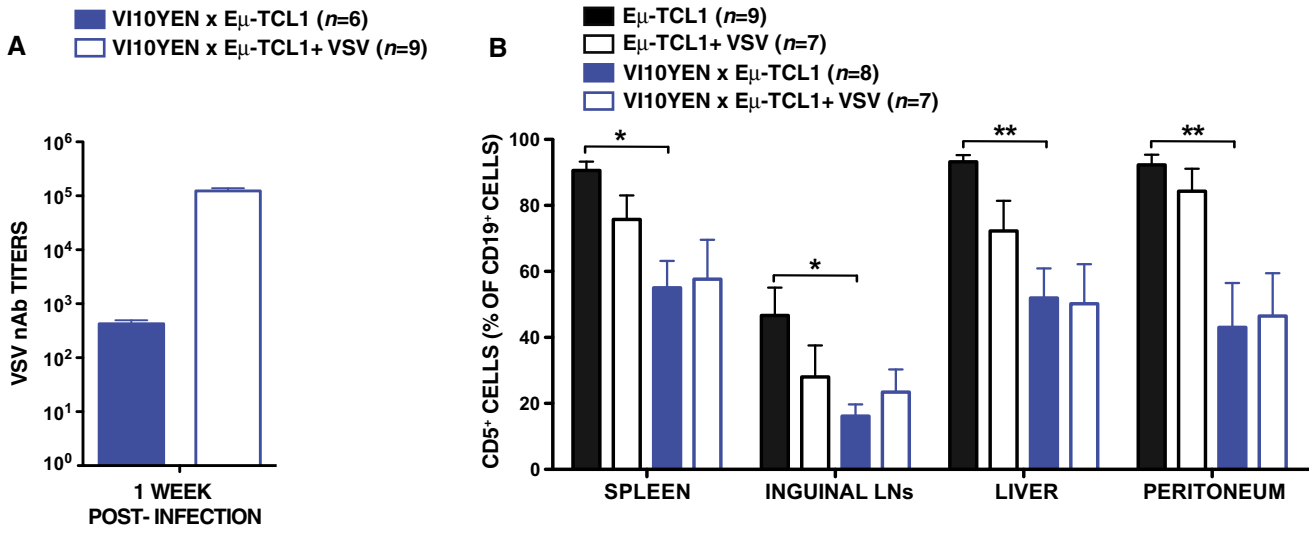

Figure EV2. VSV infection does not affect CLL development or progression.

A VSV neutralizing antibody (nAb) titers in the serum of VI10YEN × Eμ-TCL1 9-week-old male mice that were infected (open bars) or not (closed bars) with VSV 7 days earlier. n = 6 (VI10YEN × Eμ-TCL1) and 9 (VI10YEN × Eμ-TCL1 + VSV).

B Percentage of $CD5^+$ cells (out of total $CD19^+$ cells) in the indicated organs of Eμ-TCL1 (black) and VI10YEN × Eμ-TCL1 (blue) male mice that were infected (open bars) or not (closed bars) with 10^6 p.f.u. of VSV Indiana at 8 weeks of age and sacrificed 28 weeks later. n = 9 (Eμ-TCL1), 7 (Eμ-TCL1 + VSV), 8 (VI10YEN × Eμ-TCL1), 7 (VI10YEN × Eμ-TCL1 + VSV). One-way ANOVA (Bonferroni's multiple comparison).

Data information: Results are expressed as mean + SEM. *P < 0.05, **P < 0.01. Exact P-values for each experiment are reported in Appendix Table S1.
Source data are available online for this figure.

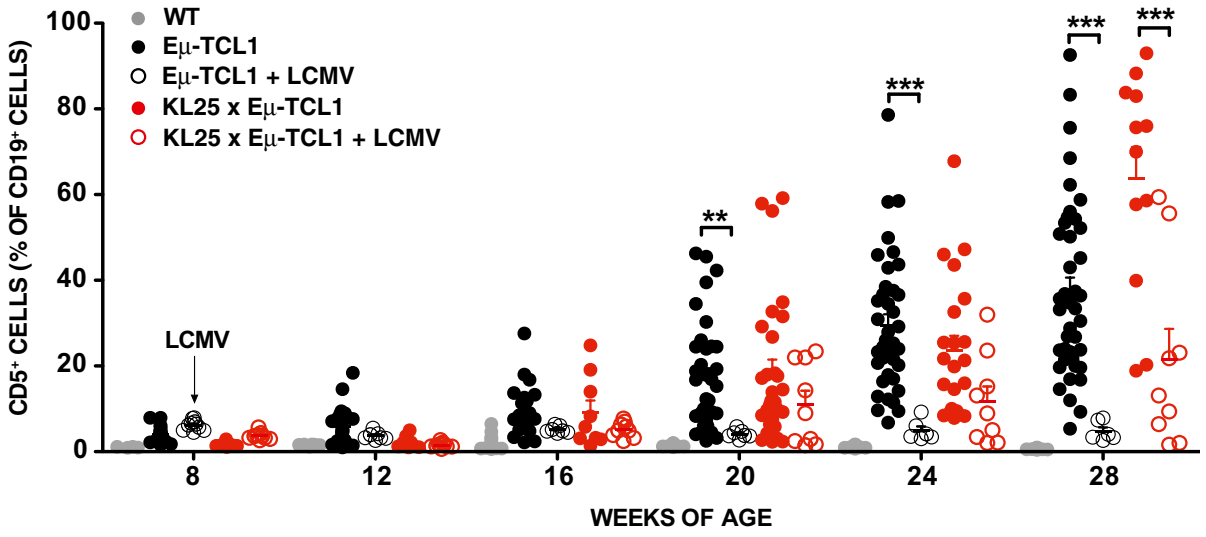

Figure EV3. LCMV infection prevents CLL development in Eμ-TCL1 mice.

Percentage of $CD5^+$ cells (out of total $CD19^+$ peripheral blood leukocytes) over time in WT (gray) and in Eμ-TCL1 (black) male mice that were infected (open symbols) or not (closed symbols) with LCMV. n = 4–20 (WT), 16–45 (Eμ-TCL1), 6–10 (Eμ-TCL1 + LCMV), 8–29 (KL25 × Eμ-TCL1), 9–11 (KL25 × Eμ-TCL1 + LCMV). Please note that the uninfected WT, Eμ-TCL1, and KL25 × Eμ-TCL1 controls are the same as the ones reported in Fig 1A. Results are expressed as mean + SEM. **P < 0.01, ***P < 0.001. Exact P-values for each experiment are reported in Appendix Table S1. Two-way ANOVA (Bonferroni's multiple comparison) was used.

Source data are available online for this figure.

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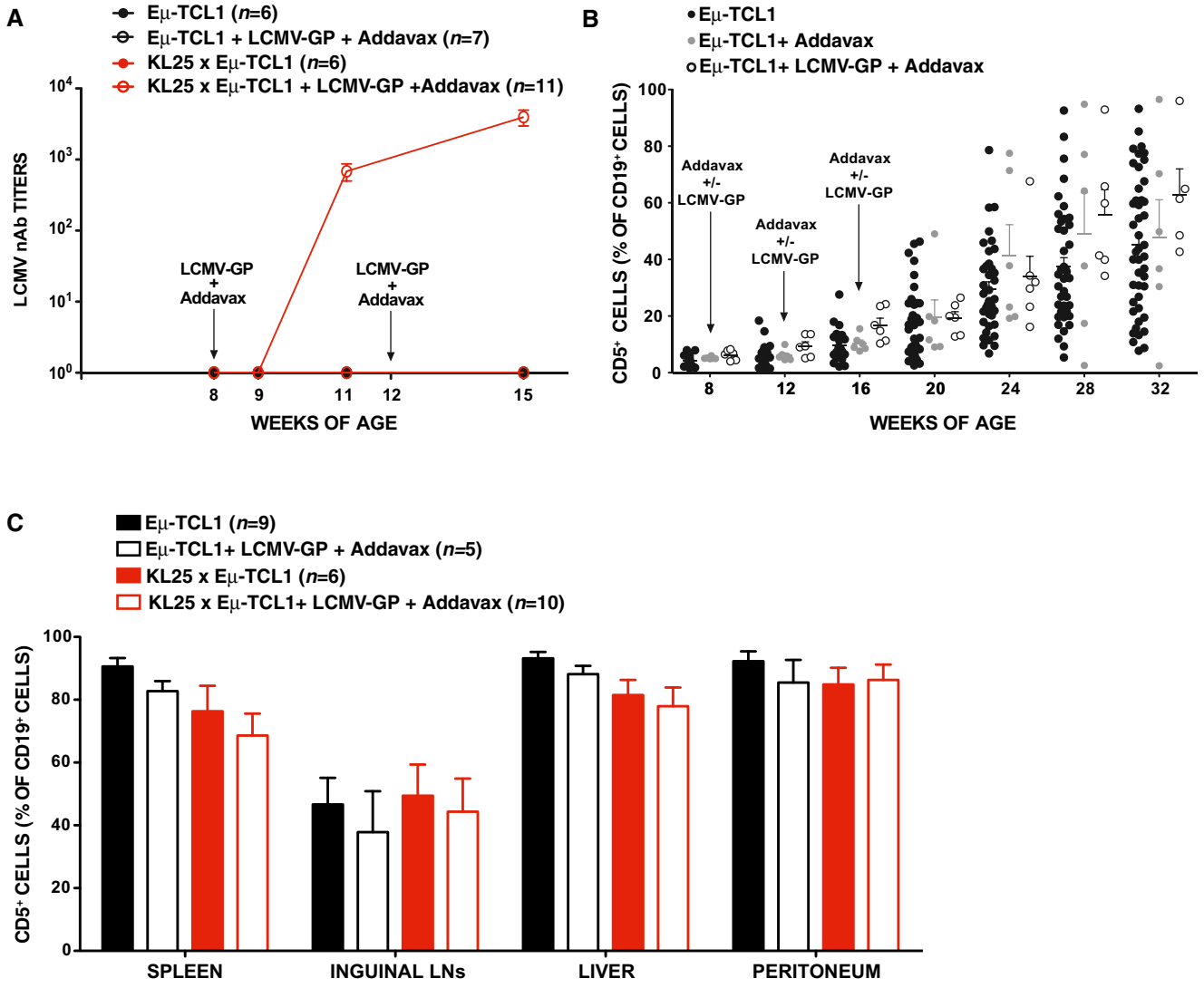

Figure EV4. Immunization with LCMV-GP does not affect CLL development or progression.

A LCMV neutralizing antibody (nAb) titers over time in the serum of Eμ-TCL1 (black) and KL25 × Eμ-TCL1 (red) male mice that were immunized (open symbols) or not (closed symbols) with LCMV-GP + Addavax. *n* = 6 (Eμ-TCL1), 7 (Eμ-TCL1 + LCMV-GP + Addavax), 6 (KL25 × Eμ-TCL1), 11 (KL25 × Eμ-TCL1 + LCMV-GP + Addavax).

B Percentage of $CD5^+$ cells (out of total $CD19^+$ peripheral blood leukocytes) over time in control Eμ-TCL1 mice (black symbols) or in mice that were injected intramuscularly with Addavax (gray) or with LCMV-GP + Addavax (open symbols).

C Percentage of $CD5^+$ cells (out of total $CD19^+$ cells) in the indicated organs of Eμ-TCL1 (black) and KL25 × Eμ-TCL1 (red) mice that were immunized (open bars) or not (closed bars) with LCMV-GP + Addavax and sacrificed 24 weeks after the first immunization. *n* = 9 (Eμ-TCL1), 5 (Eμ-TCL1 + LCMV-GP + Addavax), 6 (KL25 × Eμ-TCL1), 10 (KL25 × Eμ-TCL1 + LCMV-GP + Addavax).

Data information: Results are expressed as mean + SEM.
Source data are available online for this figure.

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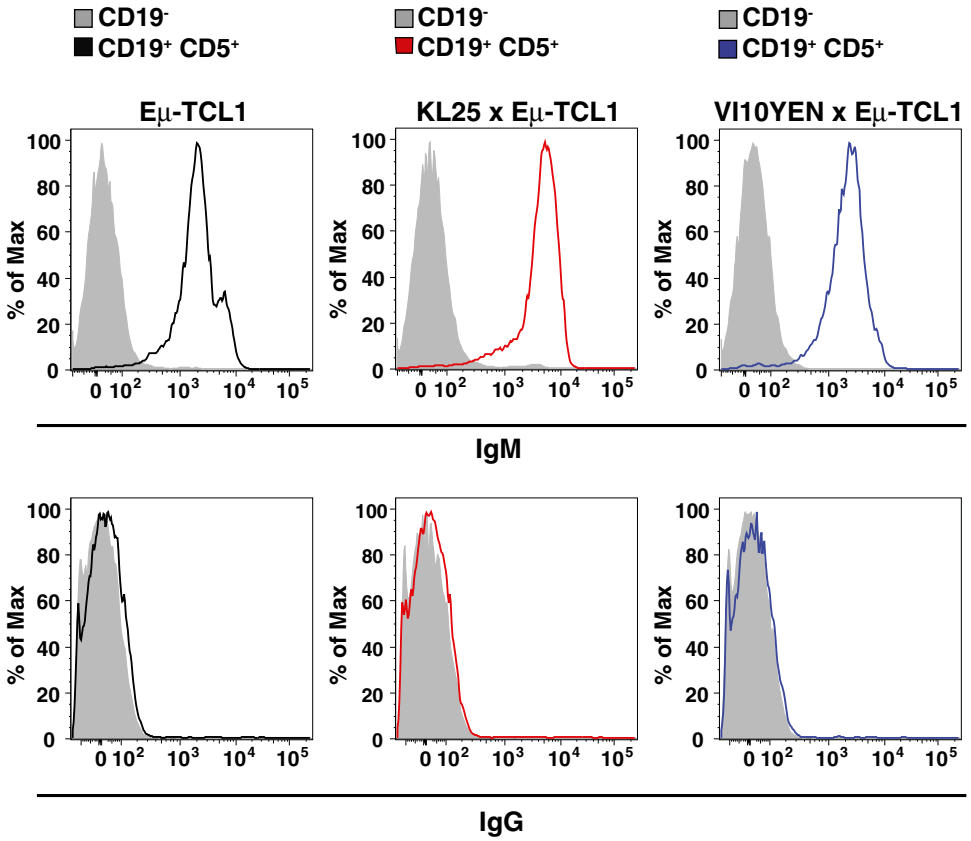

Figure EV5. CLL clones in Eμ-TCL1, KL25 × Eμ-TCL1, and VI10YEN × Eμ-TCL1 mice express IgM.

Representative flow cytometry plots of IgM (top panels) and IgG (bottom panels) expressions in $CD19^-$ cells (gray) and $CD19^+$ $CD5^+$ CLL cells (blue) in peripheral blood leukocytes isolated from 36-week-old Eμ-TCL1 (left panels), KL25 × Eμ-TCL1 (middle panels), and VI10YEN × Eμ-TCL1 (right panels) male mice.

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