





**Supplementary Figure 1.** A total of 25 x  $10^3$  cells TCR $\gamma\delta^+$  cells, CD10<sup>-</sup> PD-1<sup>-</sup> cells and CD10<sup>+</sup> PD-1<sup>+</sup> cells (without taking into account CD1a expression) were cultured in the presence of IL-7 (10 ng/mL) or IL-15 (10 ng/mL) and assayed for viable cell count at day 6 and day 10 (n = 1).





Supplementary Figure 2. Flow cytometric analysis of the CD10<sup>+</sup> PD-1<sup>+</sup> IELp cells during proliferation with IL-15. (A) Gating strategy for the six generations, indicating successive rounds of cell division. Proliferation visualized by CellTrace Violet dye dilution from right to left. (B) Dot-plots of the phenotypical markers presented in figure 2B.

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11Supplementary Figure 3. Phenotypic comparison of central memory (TCM), naive (TN), effector12memory re-expressing CD45RA (TEMRA) and effector memory (TEM) T cells. (A) Gating strategy for13CD45RA-CCR7+ TCM (yellow), CD45RA+CCR7+ TN (orange), CD45RA+CCR7- TEMRA (green) and14CD45RA-CCR7- TEM (blue) from peripheral blood from healthy adult donors. (B) Histograms15showing the expression of phenotypical markers in TCM (yellow), TN (orange), TEMRA (green) and16TEM (blue). Representative of three biological replicates.



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18Supplementary Figure 4. Heatmaps for log2 fold change in expression in TCRγδ<sup>+</sup> cells incubated with19IL-15, CD10<sup>-</sup> PD-1<sup>-</sup> cells with IL-7 and CD10<sup>+</sup> PD-1<sup>+</sup> cells with IL-15 for 11 days, compared to the same20populations freshly isolated from human postnatal thymus at day 0, showing (A) the top 50 most21upregulated genes in CD10<sup>+</sup> PD-1<sup>+</sup> cells after culture with IL-15 and (B) the top 50 most22downregulated genes in CD10<sup>+</sup> PD-1<sup>+</sup> cells after culture with IL-15.



CD10<sup>+</sup> PD-1<sup>+</sup>

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Supplementary Figure 5. Gating strategy used in figure 3B. Dot plots show the CD10<sup>+</sup> PD1<sup>+</sup>
population proliferated in the presence of different interleukins for five days.