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Data Article

Data on the effects of eIF6 downmodulation on the proportions of innate and adaptive immune system cell subpopulations and on thymocyte maturation

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ABSTRACT

The data described in this article are related to "High levels of eukaryotic Initiation Factor 6 (eIF6) are required for immune system homeostasis and for steering the glycolytic flux of TCR-stimulated $CD4^+$ T cells in both mice and humans" (Manfrini et al., in press) [1]. eIF6 is a translation initiation factor required for ribosomal biogenesis (Sanvito et al., 1999) [2] and for proper translational initiation

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(Gallo and Manfrini, 2015; Miluzio et al., 2016) [3,4] whose protein abundance requires tight regulation. Here we analyze by flow cytometry the effects of eIF6 depletion on proportions of specific innate and adaptive immune system subpopulations and on thymocyte maturation in mice.

Specifications Table

Subject area	*Biology*
More specific subject area	*Molecular Biology, Immunology*
Type of data	*Figure*
How data was acquired	FACS analysis of peripheral blood leukocytes (PBLs) isolated from the blood and of thymocytes isolated from thymi of wt and eIF6 heterozygous (het) mice. Samples were acquired on a FACSCantoII flow cytometer (from BD Biosciences) and data were analyzed using the FlowJo software (Tree star).
Data format	*Analyzed*
Experimental factors	*Not applicable*
Experimental features	*After PBL and thymocyte extraction, samples were stained with appropriate antibodies and analyzed by FACS.*
Data source location	*Not applicable*
Data accessibility	*Data is with this article*

Value of the data

- Albeit preserving precise levels of eIF6 is of physiological importance [1–6], our data indicate that eIF6 depletion does not alter the proportions of specific innate and adaptive immune system cell subpopulations nor the capability of the thymus to correctly produce mature thymocytes.
- These data could be a useful starting point for further characterization of the role of eIF6 and of translation in general in immune system regulation.
- The data can be used for comparison to other studies on translation factors affecting immune system homeostasis.

1. Data

The data presented in this article show the effects of eIF6 depletion on the proportions of innate and adaptive immune cell subtypes and on thymocyte maturation. All data support the research article "High levels of eukaryotic Initiation Factor 6 (eIF6) are required for immune system homeostasis and for steering the glycolytic flux of TCR-stimulated $CD4^+$ T cells in both mice and humans" [1].

Percentages of blood granulocytes and monocytes in wt and eIF6 heterozygous (het) mice are shown in Fig. 1A. Data on the percentages of blood B cells and $CD3^+$ T cells in both wt and eIF6 het mice are presented in Fig. 1B.

Fig. 2 focuses on thymocyte development. Thymocyte precursors are present in the thymus as double negative (DN) $CD4^-CD8^-$ cells. When both CD4 and CD8 co-receptor molecules are expressed, precursor cells become $CD4^+CD8^+$ double positive (DP) thymocytes. DP thymocytes then develop