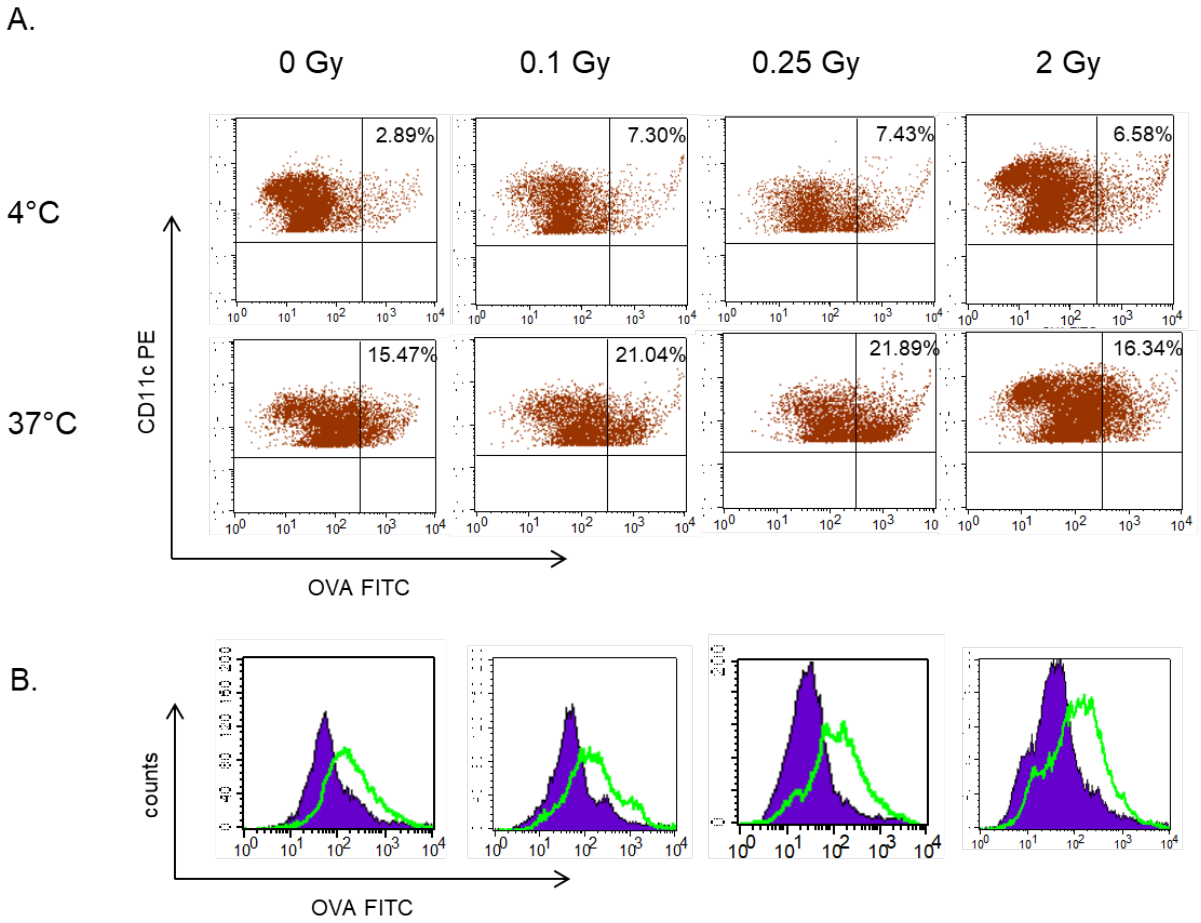
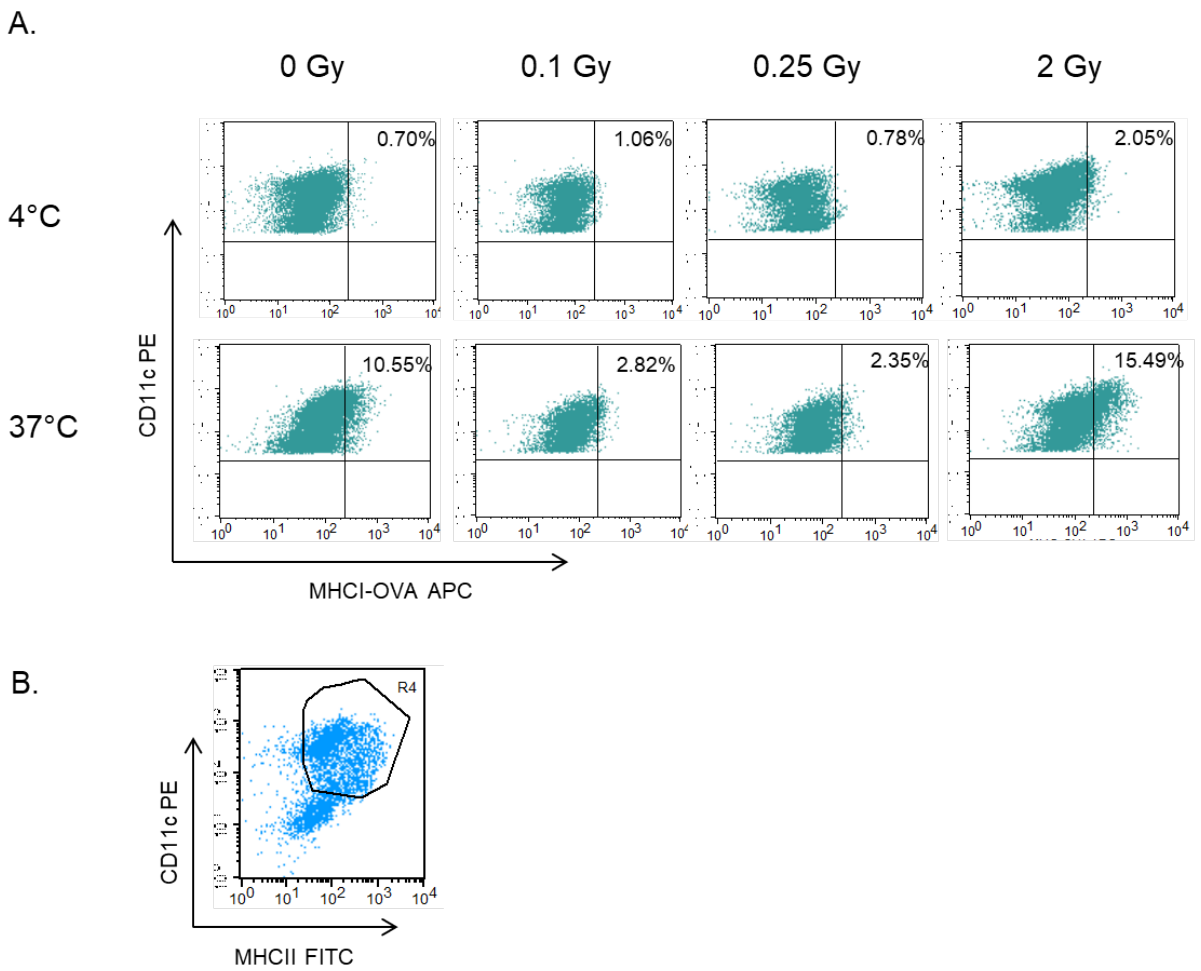
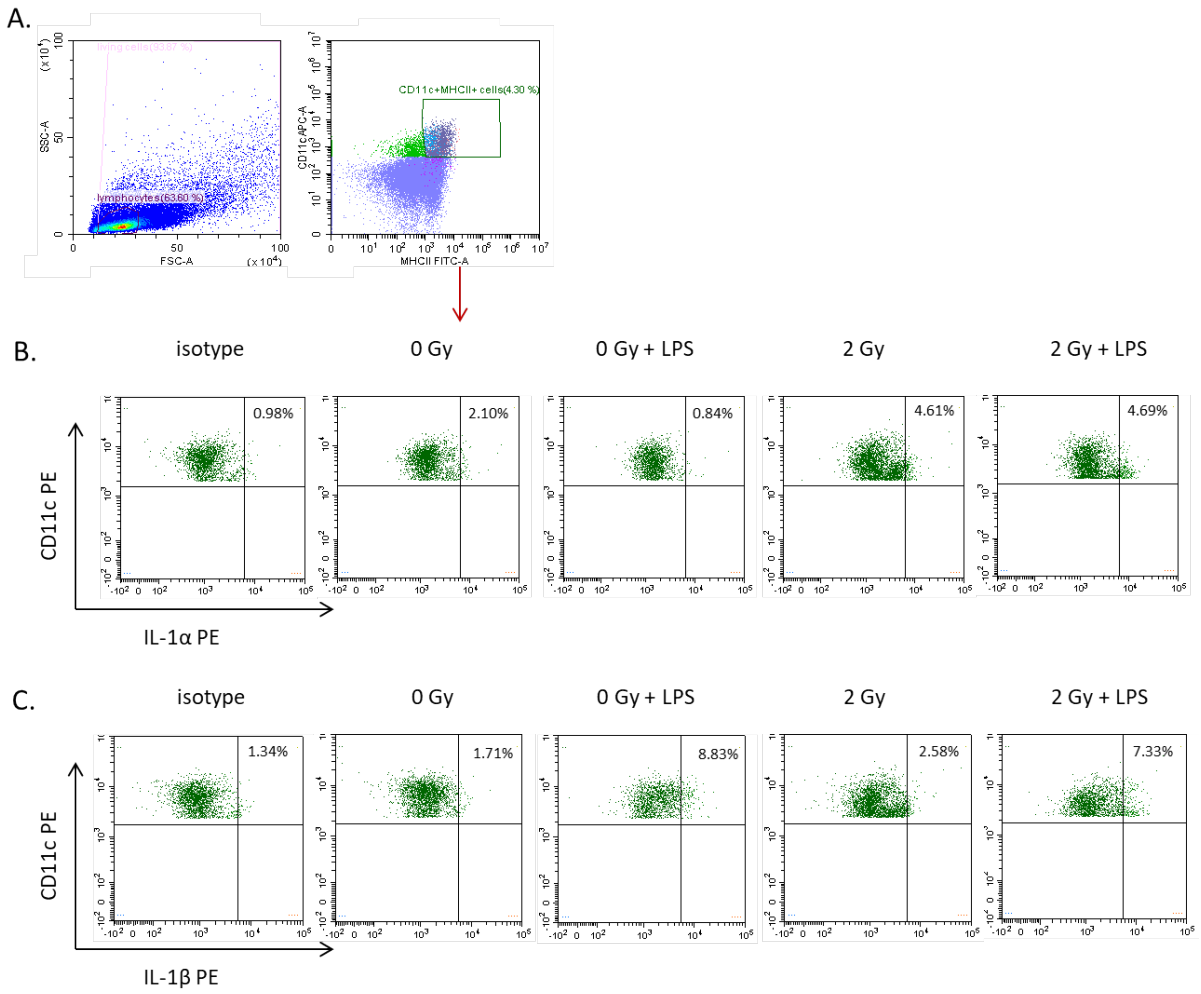



**Supplementary figure 1.** Ovalbumine (OVA) peptide uptake by CD11c+MHCII+ DCs. **A.** Isolated dendritic cells (DCs) were incubated with FITC-labeled OVA peptide at 4°C and at 37°C simultaneously, as described in Materials and Methods. The percentage of OVA peptide uptake by CD11c+MHCII+ DCs was calculated by subtracting values of unspecific uptake observed at 4°C. **B.** Histogram plots of DC fluorescence after FITC-labeled OVA peptide uptake expressed as mean fluorescent intensities (MFI) in control samples (left histogram) and samples irradiated with 2 Gy (right histogram). Differences between samples incubated in 4°C (purple areas) and 37°C (green lines) are shown.



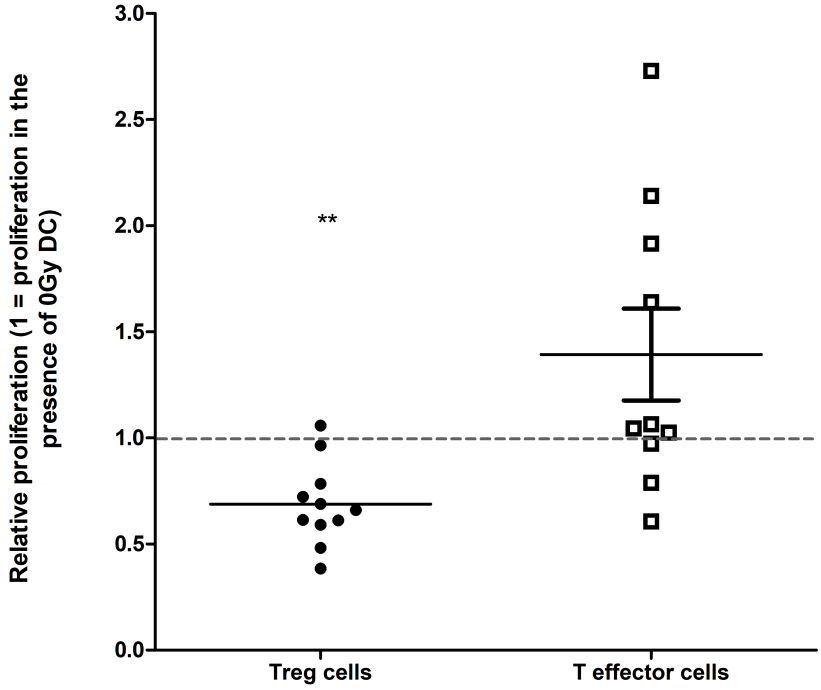

**Supplementary figure 2.** OVA peptide presentation on major histocompatibility complex (MHCI) molecules by CD11c+MHCII+ DCs. Isolated DCs were incubated in the presence of unlabeled SIINFEKL peptide. Cells were labeled with H2b-SIINFEKL-FITC antibody able to detect MHCI-bound SIINFEKL peptide. **A.** The percentage of OVA peptide presentation by DCs was calculated by subtracting values of unspecific binding observed at 4°C. **B.** Gating strategy shown for CD11c+MHCII+ cells.



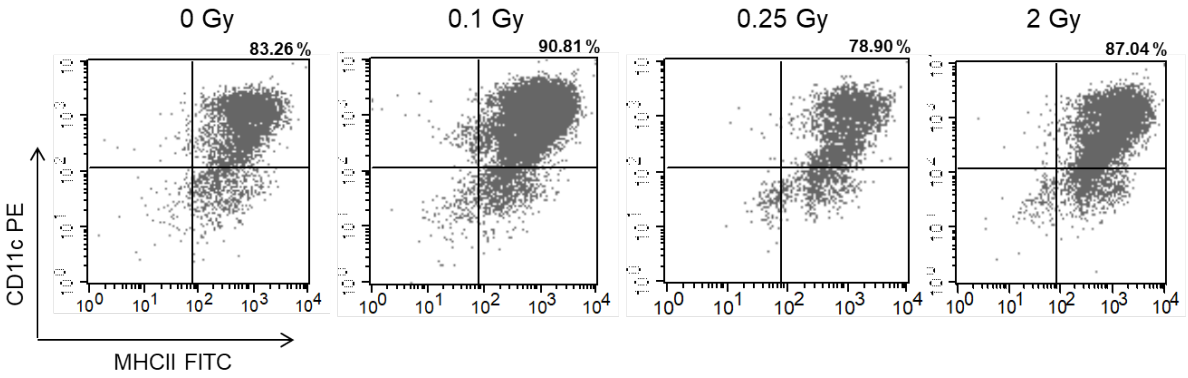

**Supplementary figure 3. A.** Gating strategy of CD11c+MHCII+ cells within splenocytes with lymphocyte population being excluded. Dot plots of (**B.**) IL1α and (**C.**) IL1β levels. The plot shows the percentage of cytokine expression of control (0 Gy) and irradiated (2 Gy) and/or lipopolysaccharide (LPS)-stimulated CD11c+MHCII+ DCs. Mice were total-body irradiated, treated with intraperitoneal (i.p.) LPS injection 18 hours later, followed by i.p. Brefeldin A injection. Cytokine production was determined 6 hours after LPS treatment in the CD11c+MHCII+ splenic DCs by intracellular cytokine labelling as described in Materials and Methods. Data represent one typical experiment.

**Supplementary table 1.** Treg and Teff cells' proliferation measured in counts per minute (cpm). Either isolated Tregs or Teffs were cultured with DCs isolated from sham-irradiated or irradiated mice as described in Materials and Methods. T cell proliferation was measured by 3H-thymidine incorporation using a liquid-scintillation counter and expressed in cpm.

| **Counts per minute (CPM)** | | 0 Gy DC | | 2 Gy DC | |
|---|---|---|---|---|---|
| | | Teff | Treg | Teff | Treg |
| experiment 1 | sample 1 | 985 | 1738 | 2260 | 846 |
| | sample 2 | 1458 | 3578 | 2925 | 2505 |
| | sample 3 | 1921 | 3578 | | 2855 |
| experiment 2 | sample 1 | 4382 | 5060 | 4593 | 3706 |
| | sample 2 | 5481 | 6873 | 4549 | 4256 |
| | sample 3 | 6518 | 6431 | 7122 | 3830 |
| | sample 4 | 5921 | 6023 | 5179 | 2324 |
| experiment 3 | sample 1 | 1880 | 2253 | 1791 | 2518 |
| | sample 2 | 1651 | 2413 | 2676 | 2421 |
| | sample 3 | 2432 | 3305 | 2459 | 2154 |
| | sample 4 | 1888 | 2652 | 1693 | 1573 |
| Average | | **3037.91** | **3991.27** | **3524.7** | **2635.27** |
| Standard deviation | | 2024.85 | 1808.94 | 1765.21 | 999.20 |

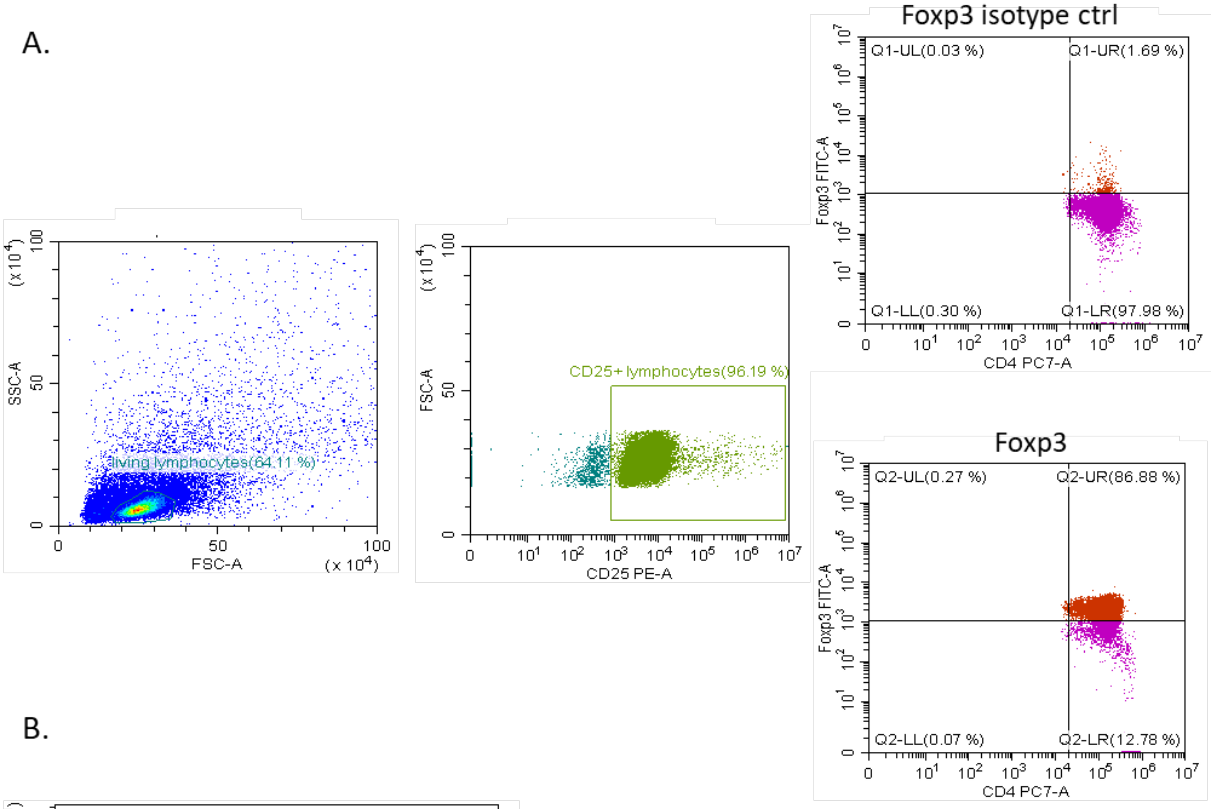



**Supplementary figure 4.** Relative proliferation of Tregs and Teffs after coculture with 2 Gy DCs. Isolated Treg and Teff cells were incubated with 0 Gy and 2 Gy DCs. Proliferation was measured 5 days later by $^{3}$H-thymidine incorporation as described in Materials and Methods. Data represent the average of three independent experiments, with bars indicating mean ± SD. Significance was tested by Student's t-test with **p<0.001.

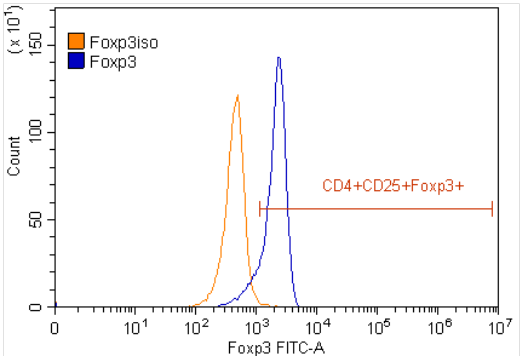



**Supplementary figure 5.** Dot plots showing the purity of DC-cell population. CD11c+ cells were purified by magnetic cell sorting using the Miltenyi Biotec's CD11c+ Dendritic Cell Isolation Kit, as described in Materials and Methods. Isolated CD11c+ cells were labelled with CD11c-PE and MHCII-FITC antibody. Data are from one representative experiment.

A.




B.




**Supplementary figure 6.** (**A.**) Dot plot and (**B.**) histogram data showing the purity of isolated Treg cells. CD4+CD25+ Tregs were purified by magnetic cell sorting using the Miltenyi Biotec's CD4+CD25+ Regulatory T Cell Isolation Kit, as described in Materials and Methods. Isolated CD4+CD25+ cells were fixed, permeabilized, and labeled intracellularly with a Foxp3-FITC antibody. Percentage of Foxp3+ cells within CD4+CD25+ cell population represents purity of isolated Treg cells. Data are from one typical experiment.