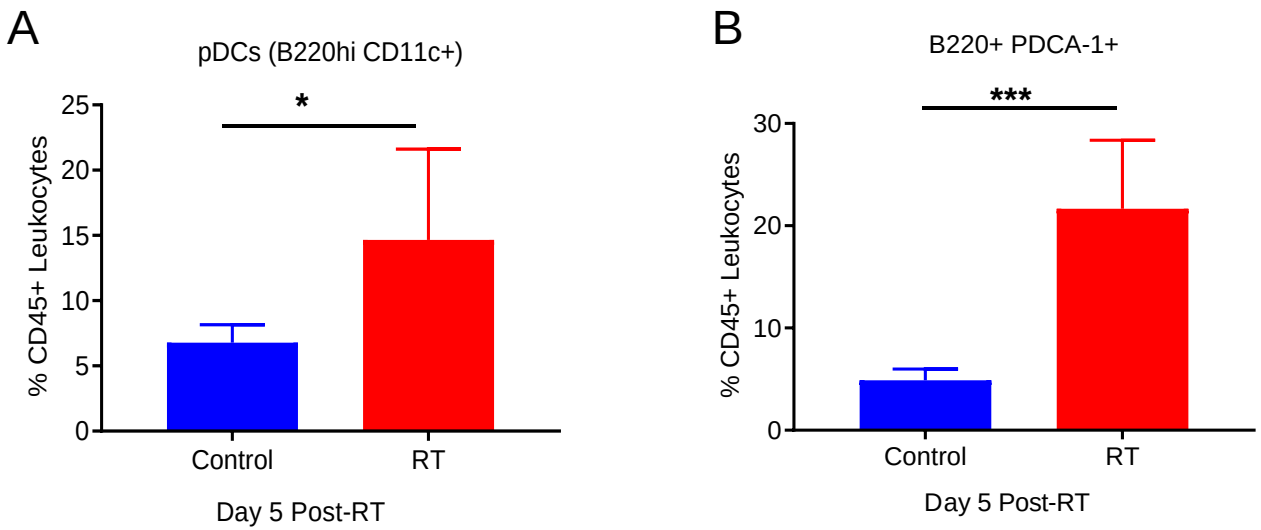
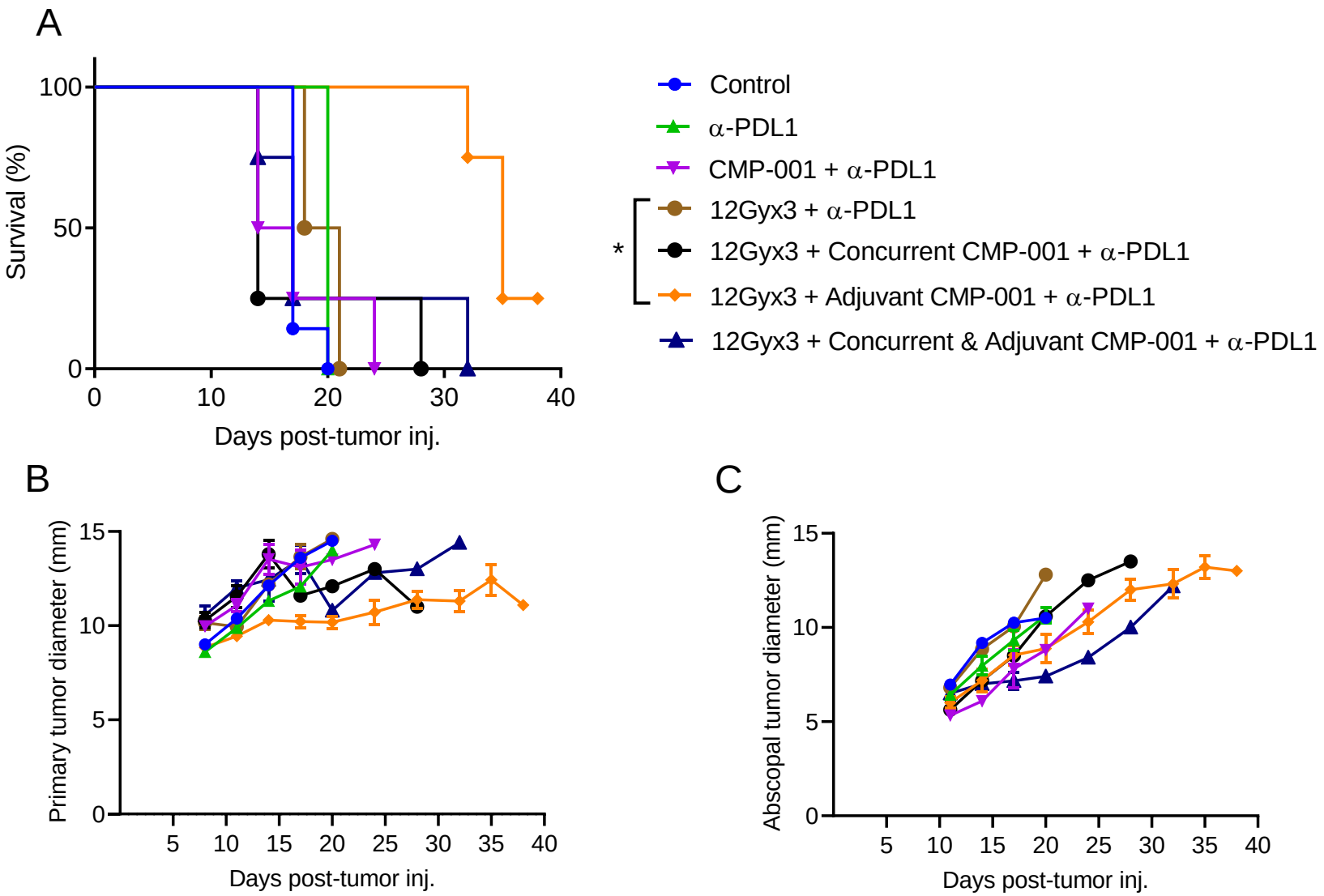
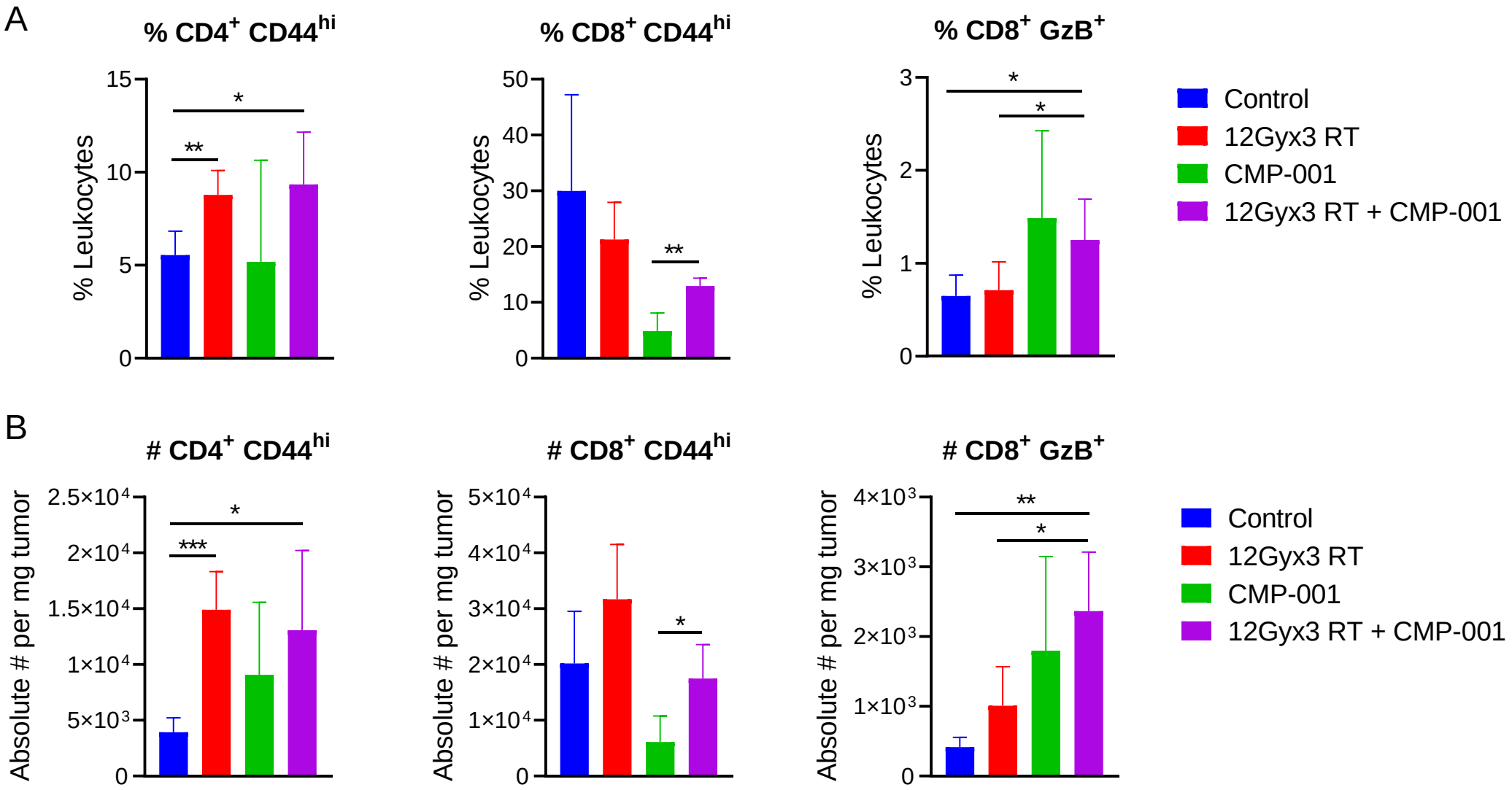


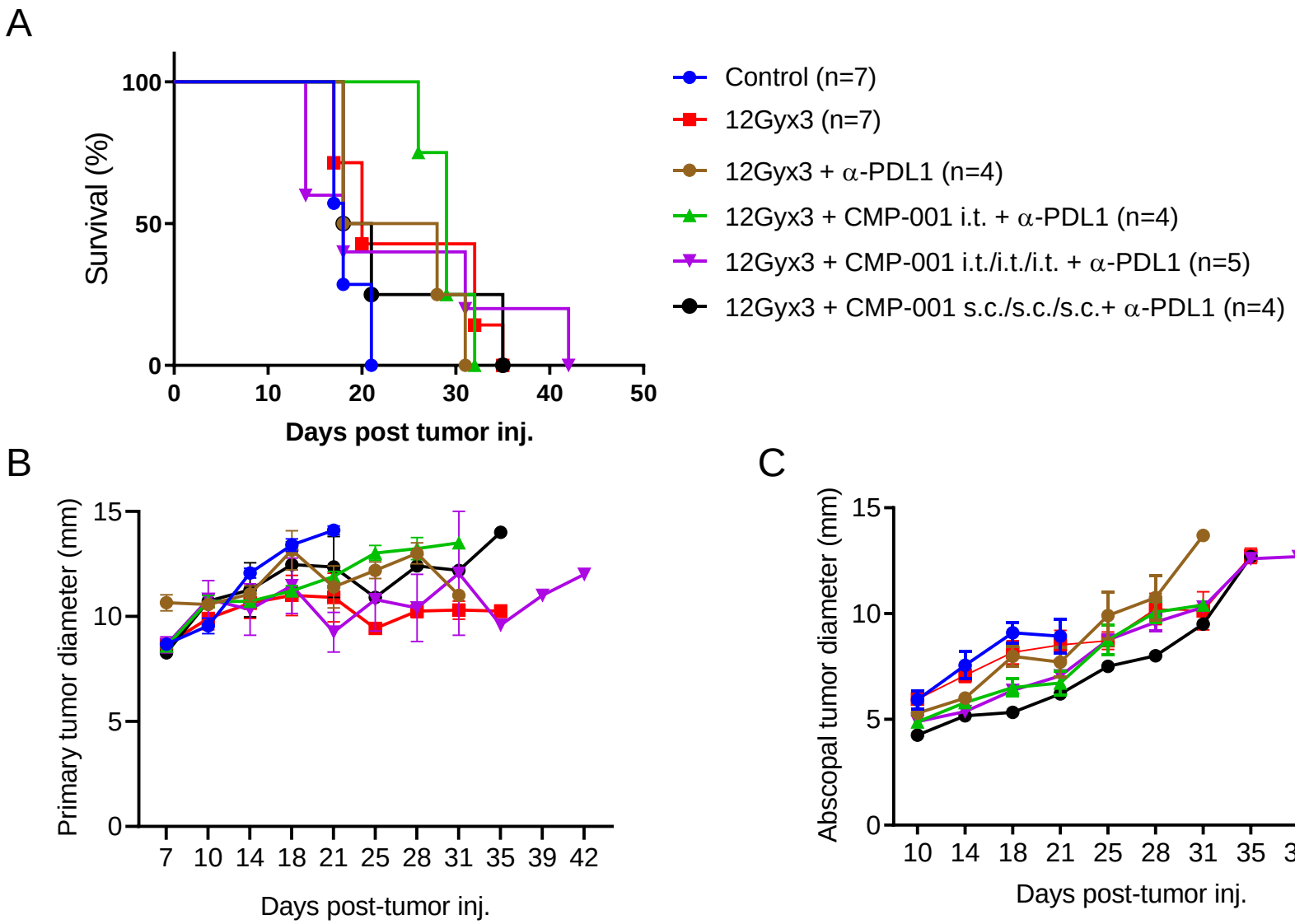
Supplemental Figure S1. High-dose radiotherapy (RT) increased the percentage of plasmacytoid dendritic cells (pDCs). To confirm the results shown in Figure 1, we used additional markers to identify pDCs (B220, CD11c, and PDCA-1) and found that high-dose RT (three 12-Gy fractions) significantly increased the percentage of B220hi CD11c^{+} pDCs (**A**) and B220^{+} PDCA-1^{+} cells (**B**) at 5 days after RT.



Supplemental Figure S2. Repeated intratumoral injections of CMP-001, in combination with anti-PDL1, after radiotherapy (RT) delayed tumor growth. To optimize sequencing of CMP-001 with RT, we tested CMP-001 given as concurrent I.T. Injections, adjuvant I.T. injections, or concurrent & adjuvant I.T. injections (Mice = 4 per group). Adjuvant I.T. injections of CMP-001 given after RT led to better survival (**A**) and delayed tumor growth (**B,C**) compared with the other treatment conditions. For the concurrent setting, CMP-001 was given with the first fraction of RT; while in the adjuvant setting, two CMP-001 doses were given 3 days and 10 days after RT. Anti-PDL1 (200µg i.p.) was given on days 5, 8, 12, and 16 post-tumor inoculation.



Supplemental Figure S3. Stereotactic RT + CMP-001 treatment upregulated activated T-cells in primary tumor microenvironment. 344SQ tumors were bilaterally established in the hind legs of 129Sv/Ev mice (n=4/group). RT was delivered to primary tumors on days 6,7,8 and CMP-001 was given I.T. on days 11,14,19. Primary tumors were harvested on day 20, weighed, and processed for TILs phenotyping using flow cytometry. (**A**) Percentages and (**B**) cell numbers of activated T-cells per mg of tumor tissue. Cells were gated on leukocytes, followed by $CD45^+$ population, followed by $CD4^+$ $CD44^{hi}$ or $CD8^+$ $CD44^{hi}$ or $CD8^+$ GranzymeB$^+$ subpopulations. Student t-tests were conducted between groups. *$P \leq 0.05$, **$P \leq 0.01$, ***$P \leq 0.001$.



Supplemental Figure S4. Intratumoral CMP-001 injection led to increased survival as compared with subcutaneous delivery in a 344SQ lung adenocarcinoma model. We followed the same experimental schedule as in Figure 1A, with the addition of α-PDL1 checkpoint inhibitor on days 5, 9, 13, and 17. The CMP-001 was given as repeated I.T. Injections vs single I.T. injection vs repeated S.C. injections. Repeated I.T. injections of CMP-001 after radiotherapy (RT) led to slightly better survival, but had little effect on tumor control, as compared with repeated S.C. injections.