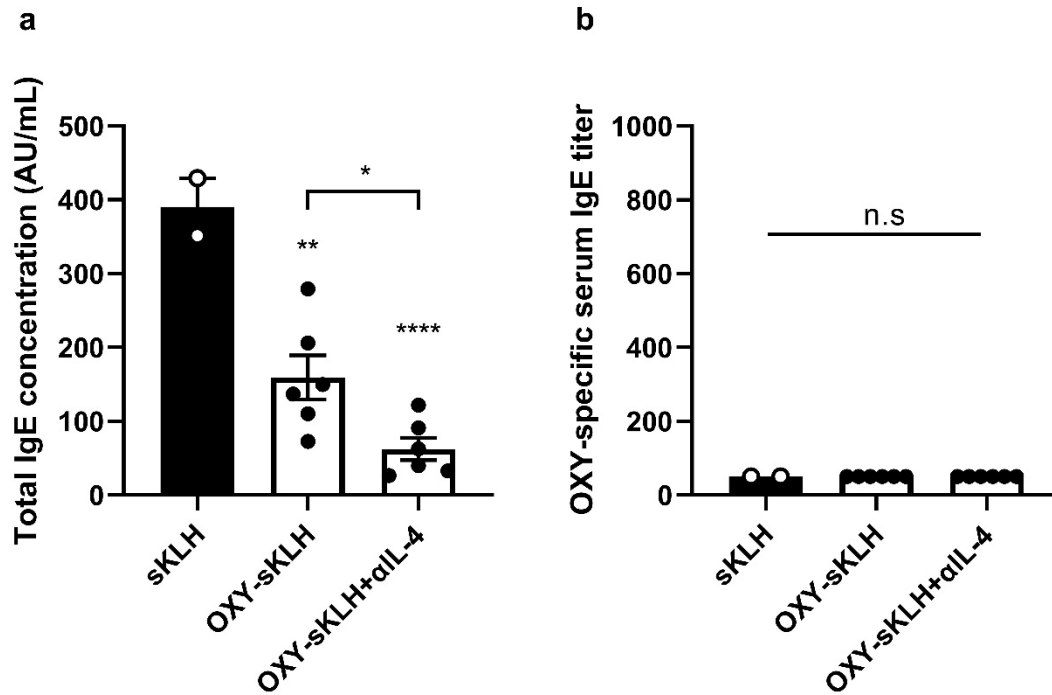
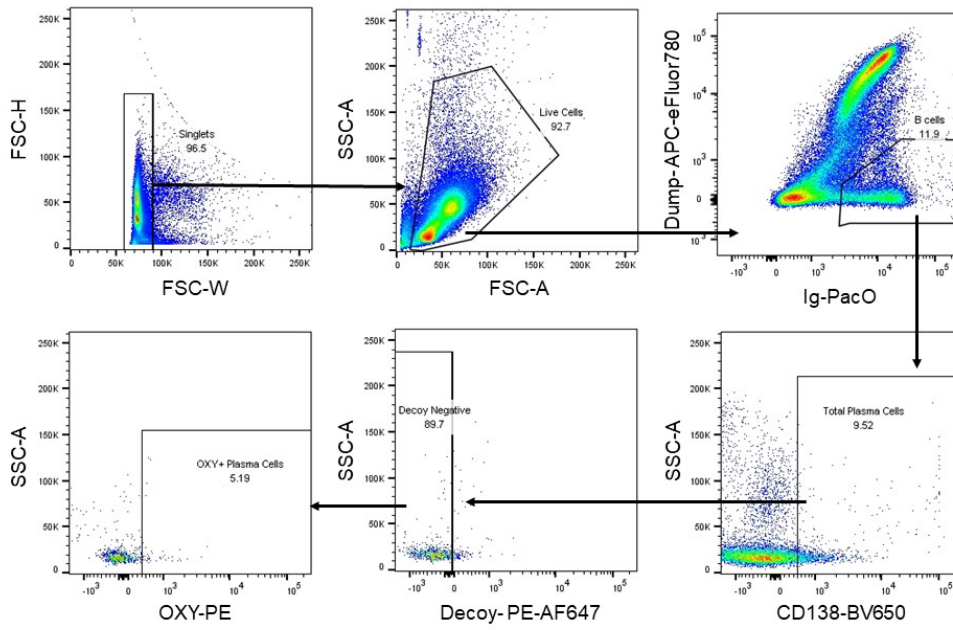


Supplemental Figure 1



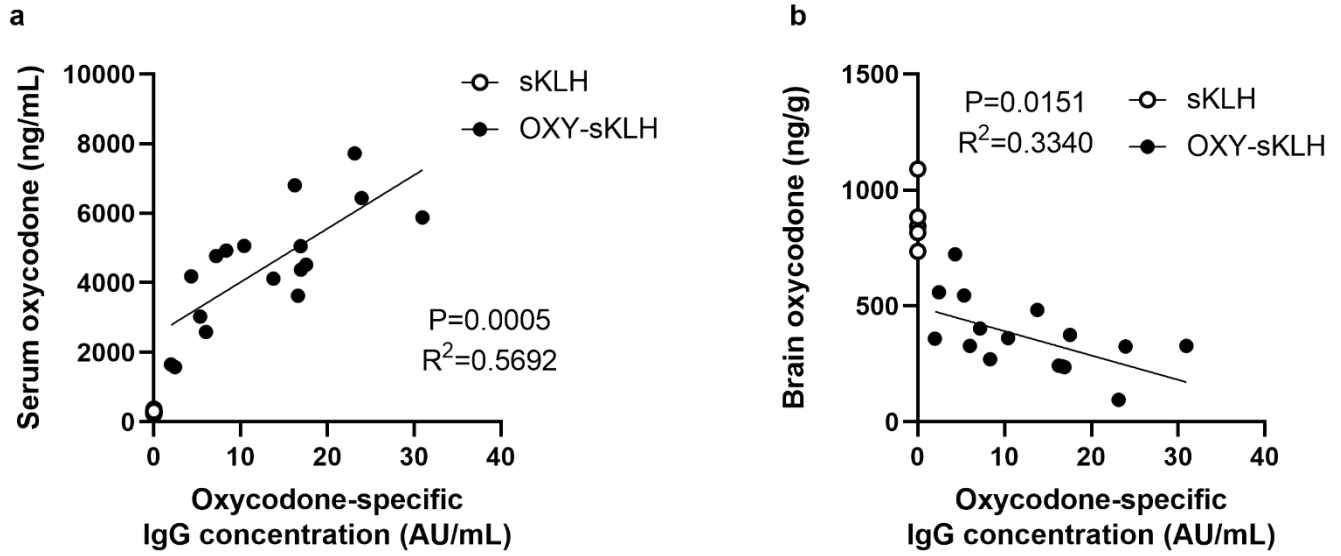
Supplemental Figure 1. Mice were immunized on days 0, 14, and 28 with sKLH control or OXY-sKLH with or without IL-4 depletion. On day 34, blood was collected for detection of A) total IgE and B) oxycodone-specific IgE by ELISA. Data are mean±SEM. Statistical analysis performed via one way ANOVA with Tukey's multiple comparisons post hoc test. Stars over columns indicate significance compared to the control or between groups as indicated by brackets. Statistical symbols: * $p < 0.05$, ** $p < 0.01$, **** $p < 0.0001$.

Supplemental Figure 2



Supplemental Figure 2. Representative gating strategy to quantify oxycodone-specific long-lived plasma cells in bone marrow, which was harvested on day 100 from mice in Figure 4.

Supplemental Figure 3



Supplemental Figure 3. From the experiment in Figure 5, correlations between serum oxycodone-specific IgG concentration vs. A) serum oxycodone concentration and B) brain oxycodone concentration.