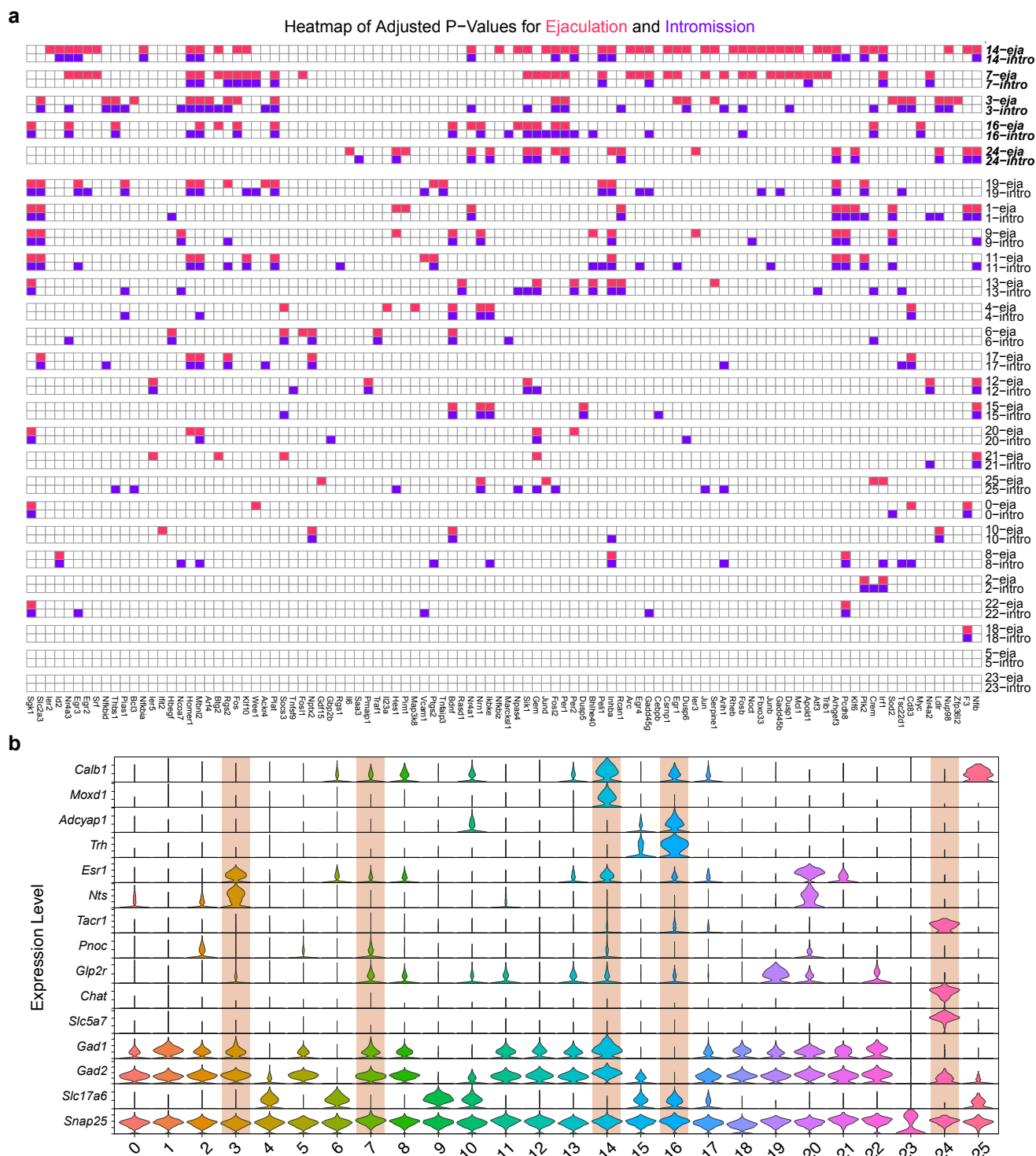




Extended Data Figure 2. Activation of specific POA neuron clusters during ejaculation versus intromission.

a. Filled blocks indicate the corresponding IEGs (columns) showed significant enrichment (adjusted $p < 0.05$) for a cluster (rows) under the ejaculation (red) or intromission (blue) condition. Clusters are ordered by the number of IEGs that showed enrichment under the ejaculation condition. Clusters #14, #7, #3, #16, #24 (in bold) show significant enrichment of more than 15 IEGs during ejaculation.

b. Violin plots displaying the relative expression levels of marker genes (listed on the left) across the 26 neuron clusters, highlighting cluster #3 as *Esr1*⁺/*Nts*⁺, cluster #16 as *Calb1*⁺/*Adcyap1*⁺, and cluster #24 as *Tacr1*⁺.