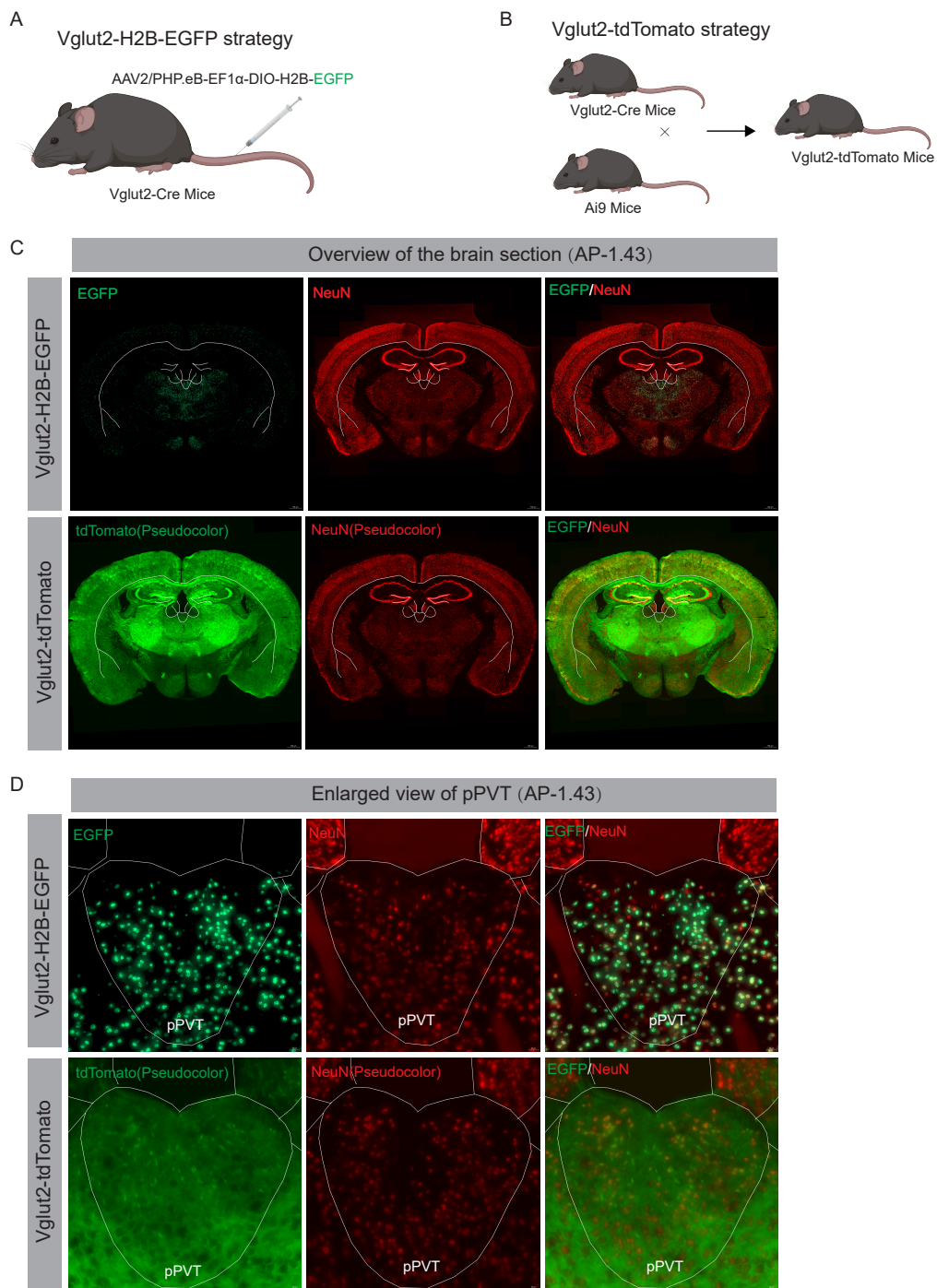




Supplementary Figure 1: Compared with Vglut2-tdTomato strategy, Vglut2-H2B-EGFP demonstrated superior efficacy in revealing Vglut2+ neurons within the pPVT brain region. A Methodology of Vglut2-H2B-EGFP strategy. B Methodology of Vglut2-tdTomato strategy. C Representative images of Vglut2+ neurons labeled by AAV-DIO-H2B-EGF(the first row) and Vglut2+ neurons labeled by tdTomato(the bottom row) and NeuN in an overview of brain section. D Representative images of Vglut2+ neurons labeled by AAV-DIO-H2B-EGF(the first row) and Vglut2+ neurons labeled by tdTomato(the bottom row) and NeuN in an enlarged view of pPVT.