

Supplementary Figures:

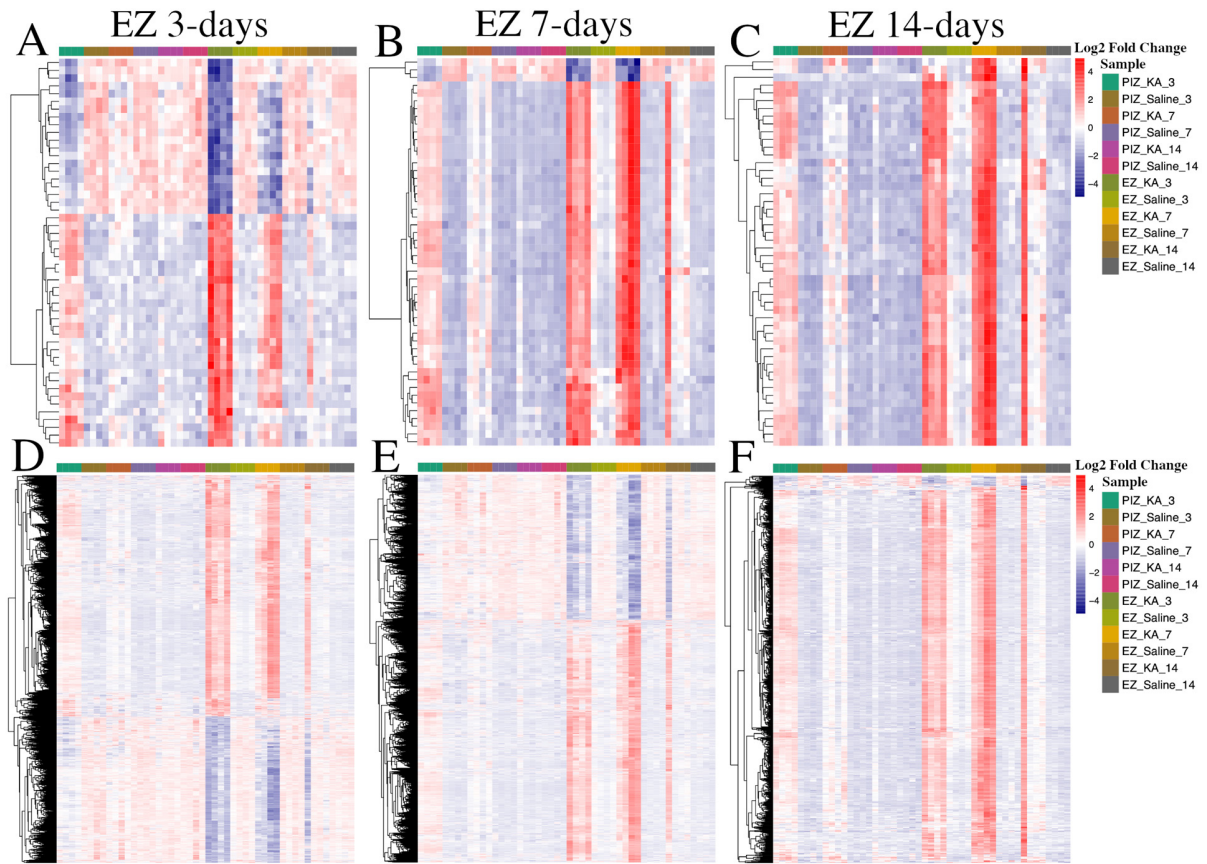


Figure S1. Hierarchical cluster analysis of transcriptional dysregulation in the EZ and PIZ during the first 2 weeks of epileptogenesis. Heatmaps of (A–C) the top 50 dysregulated genes and (D–F) whole transcriptome, $FDR < 0.01$ $FC > \pm 1.5$, in the epileptogenic zone and peri-ictal zone (A,D) 3 days, (B,E) 7 days, and (C,F) 14 days after SE induction.

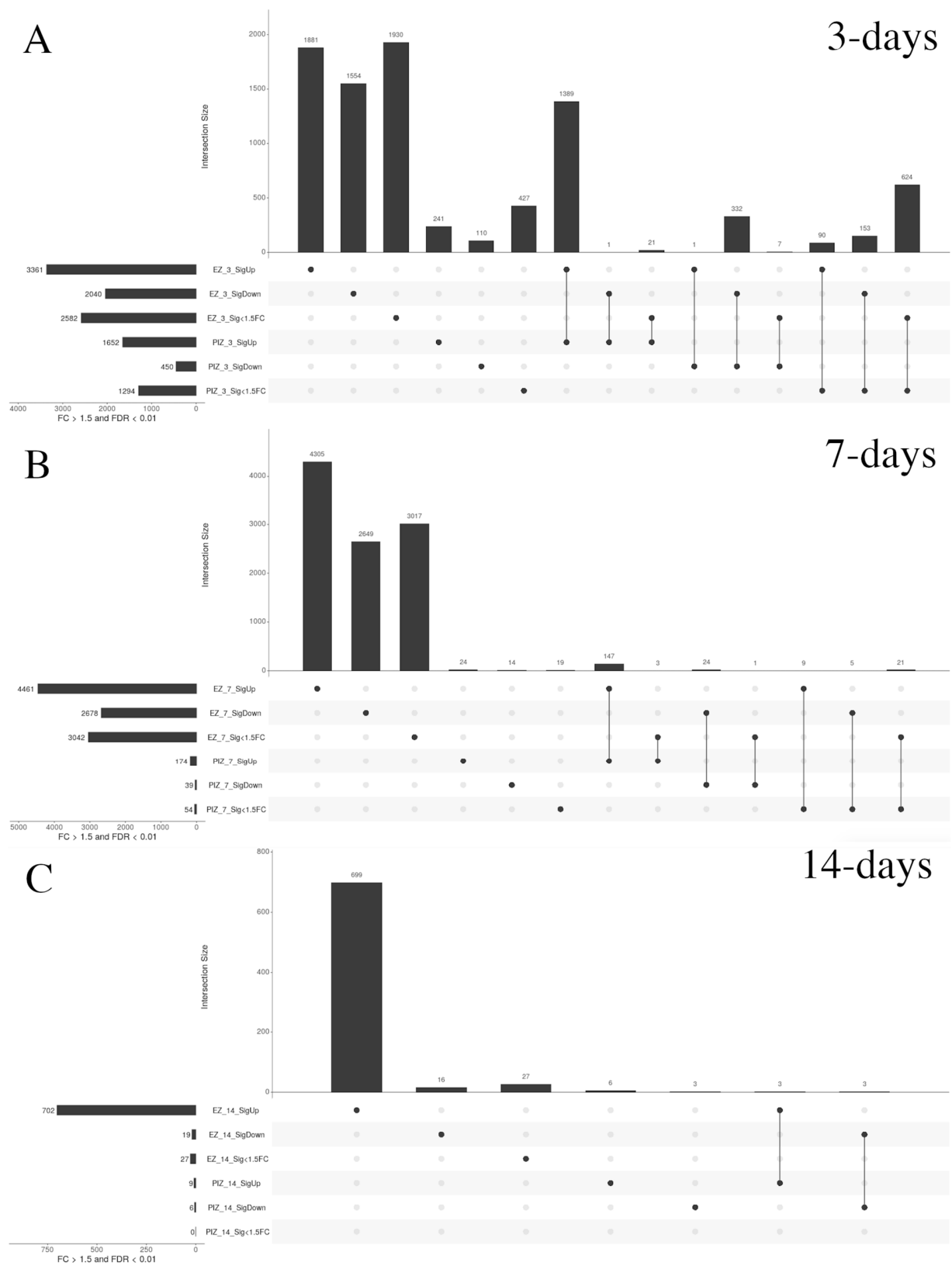


Figure S2. UpSet plots depicting overlap in differentially expressed genes across the EZ and PIZ, (A) 3 days, (B) 7 days, and (C) 14 days after SE induction.

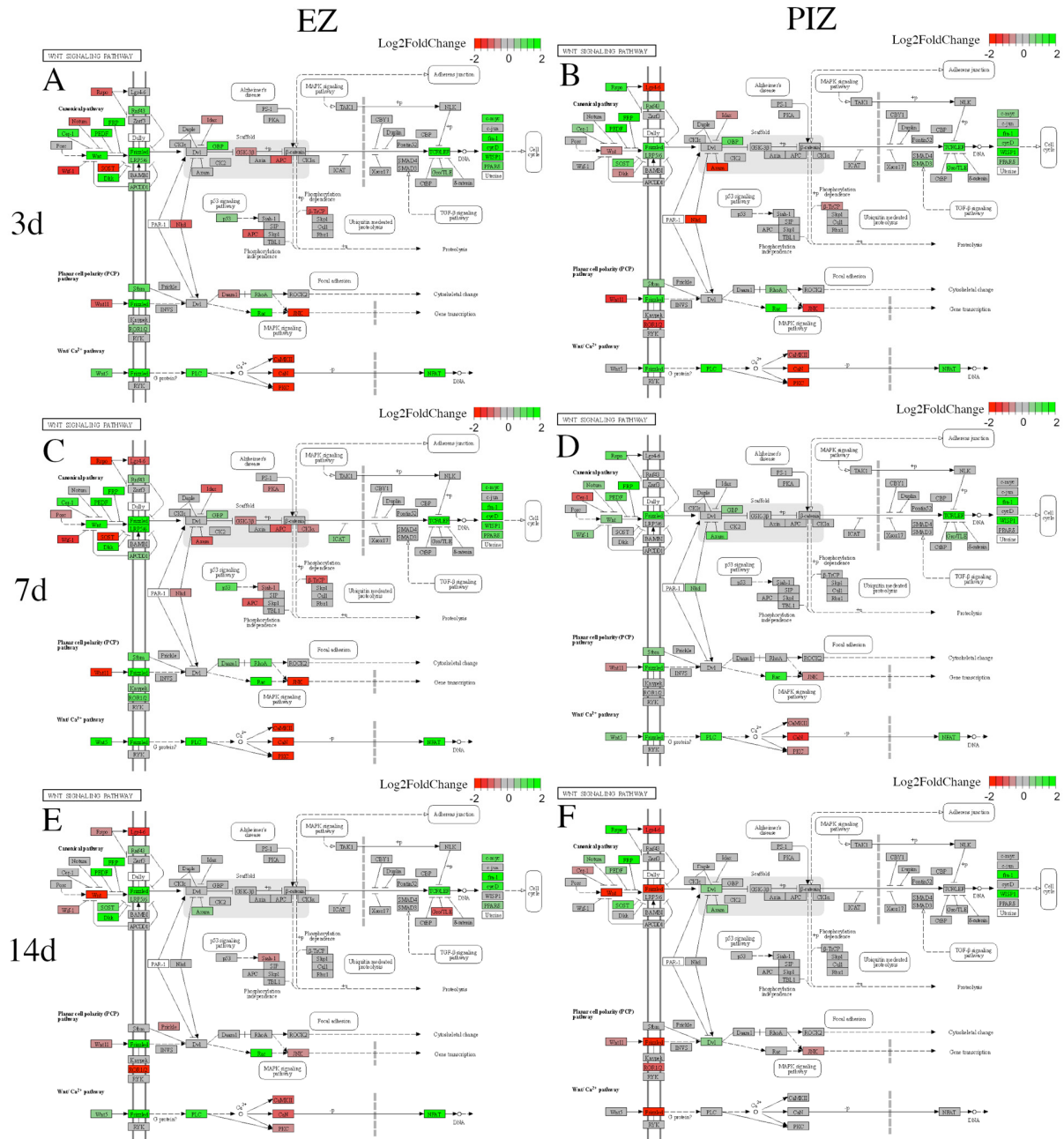


Figure S3. Modified KEGG pathway diagrams depicting canonical and non-canonical PCP and calcium Wnt signaling pathways in the EZ and PIZ after SE induction. Wnt signaling at 3 days depicted in (A) EZ and (B) PIZ, at 7 days in (C) EZ and (D) PIZ, and at 14 days in (E) EZ and (F) PIZ.

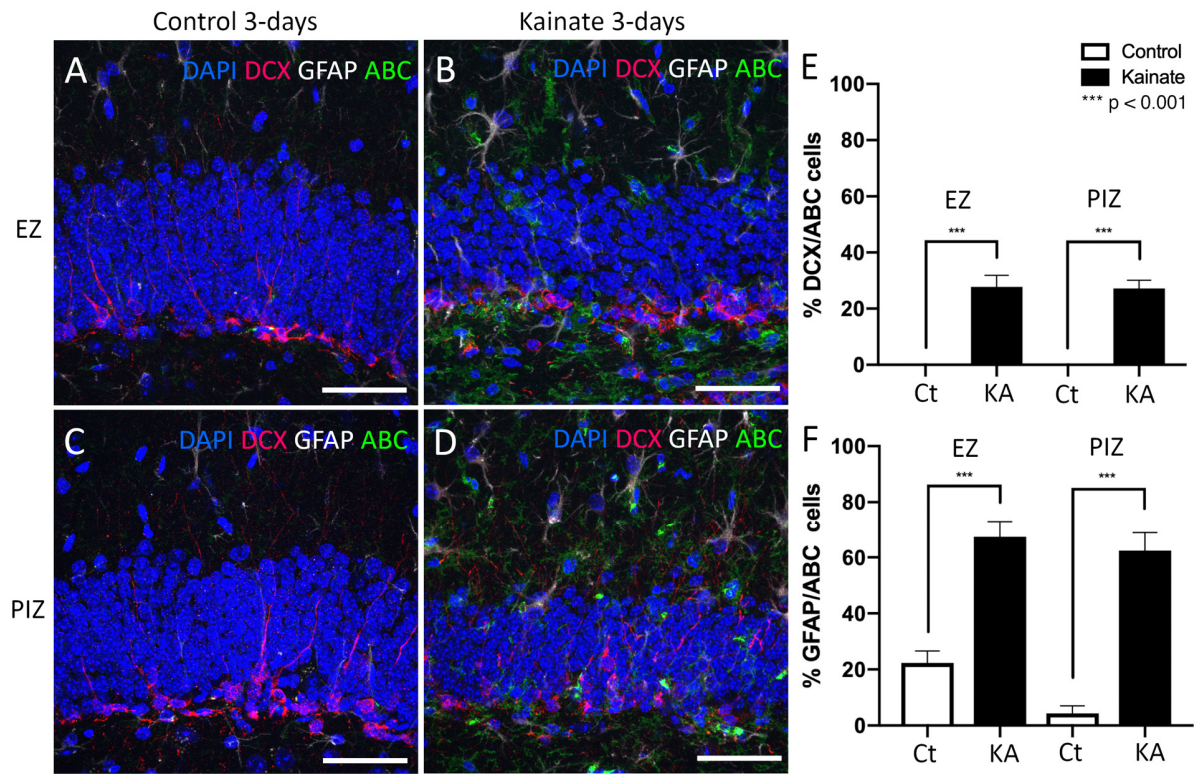


Figure S4. Cellular localization of active beta-catenin 3 days after kainate. Immunofluorescent images demonstrate active beta-catenin (ABC), doublecortin (DCX), and glial fibrillary acid (GFAP) expression in the dentate gyrus at 3 days in (A) control EZ, (B) kainate EZ, (C) control PIZ, and (D) kainate PIZ. Histograms demonstrating quantification of co-localization for (E) DCX and ABC, and (F) subgranular zone GFAP and ABC in the EZ and PIZ. Scale bar 50 μm , *** $p < 0.001$ (Student's t -test).

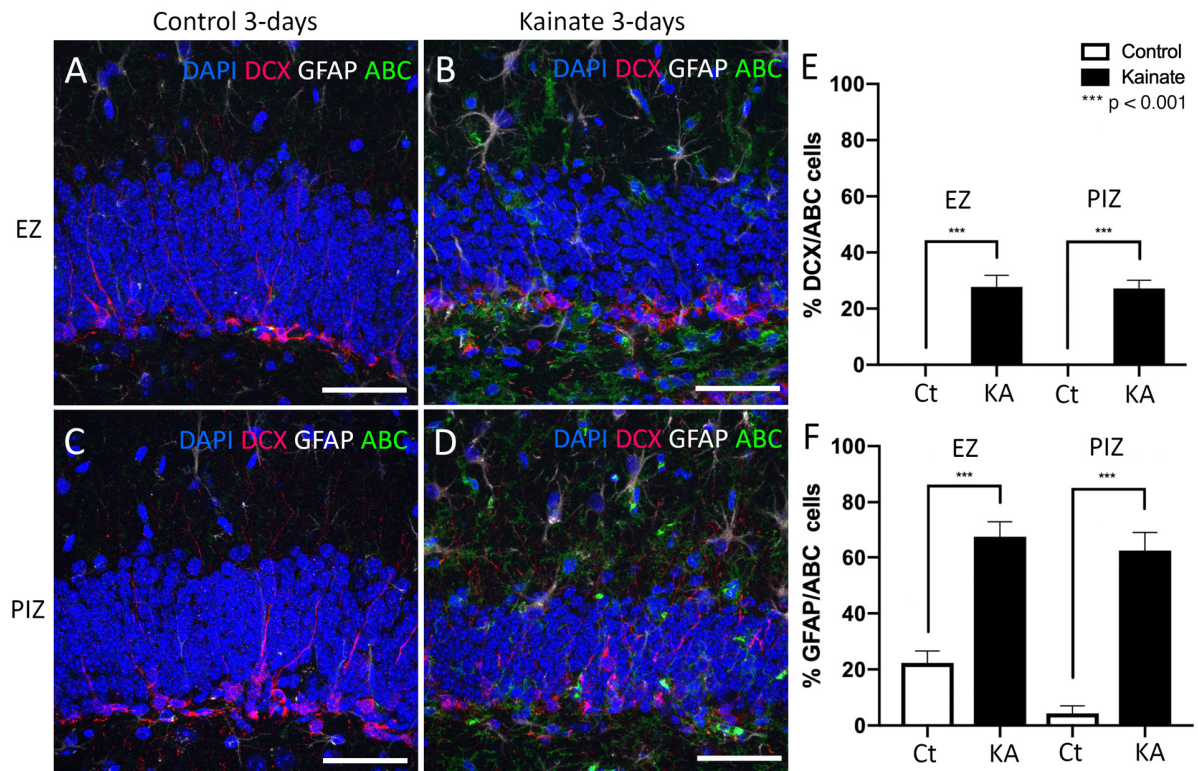


Figure S5. Cellular localization of active beta-catenin 3-days after kainate. Immunofluorescent images demonstrate active-beta-catenin (ABC), doublecortin (DCX) and glial fibrillary acid (GFAP) expression in the dentate gyrus 3-days in A) Control EZ, B) Kainate EZ, C) Control PIZ, D) Kainate PIZ. Histograms demonstrating quantification of co-localization for E) DCX & ABC and F) subgranular zone GFAP & ABC in the EZ and PIZ. Scale bar 50 μ m, *** $p < 0.001$ (Student's t-test).