

Supplemental Figure S1. Nissl-Stained Sections of the EC Obtained from SE and Control Rats

Images of Nissl-stained coronal sections of the EC from animals induced with status epilepticus 1 week prior (1 week SE: [A]) and the appropriate controls (rats treated with sodium pentobarbital [SP] only 1 week prior: [B]) obtained using a low-magnification (2×) lens (i). Images of cells from EC layer III were also obtained using higher magnification (10× [ii] and 40× [iii]) lens. (C) and (D) show low-magnification images of EC coronal sections obtained from rats induced with SE 24 hr prior and the control, respectively. No obvious cell loss was observed in the EC from rats treated with kainic acid either 1 wk prior or 24 hr prior. In contrast, cell loss was noticeable in hippocampal CA3 region as reported previously (Ben-Ari and Cossart, 2000; data not shown). The scale shown in (Ai) also applies to (Bi), (C), and (D). The scale shown in (Aii) and (Aiii) applies to (Bii) and (Biii), respectively.

Supplemental Figure S2. Control and SE Somatic Input-Output Curves at a Fixed Potential of -70 mV

(A and B) Examples of recordings obtained from the 24 hr control (vehicle) and 24 hr SE somata in response to hyperpolarizing and depolarizing current injections. The recordings were obtained at a fixed potential of -70 mV. The time scale shown in (A) applies to (B) too. (C) Average input-output curves obtained from 24 hr and 1 wk SE, 24 hr and 1 wk SP, and 24 hr vehicle neurons at a fixed potential of -70 mV. The asterisks above the 24 hr SE group indicate significance ($p < 0.05$) when compared to the 24 hr SP and 24 hr vehicle groups. Similarly, the asterisks placed below the 1 wk SE group indicate significance in comparison to the 1 wk SP group.

Supplemental Figure S3. Actin Levels in EC of SE and Control Animals

(A and B) Graphs to show the total actin immunoreactivity in tissue samples from animals that had been treated either 24 hr prior or 1 wk prior. EC tissue samples from SE and control groups were homogenized and membranes prepared for Western blots. These were first probed with HCN1 and HCN2 antibodies and then stripped and reprobed using an antibody to actin. Actin immunoreactivity was measured using densitometry and normalized to vehicle control groups. There are no differences between the 24 hr groups or the 1 wk groups.