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Supplementary Materials

In Vivo Microelectrode Arrays for Detecting Multi-Region Epileptic Activities in the Hippocampus in the Latent Period of Rat Model of Temporal Lobe Epilepsy

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Supplementary figures

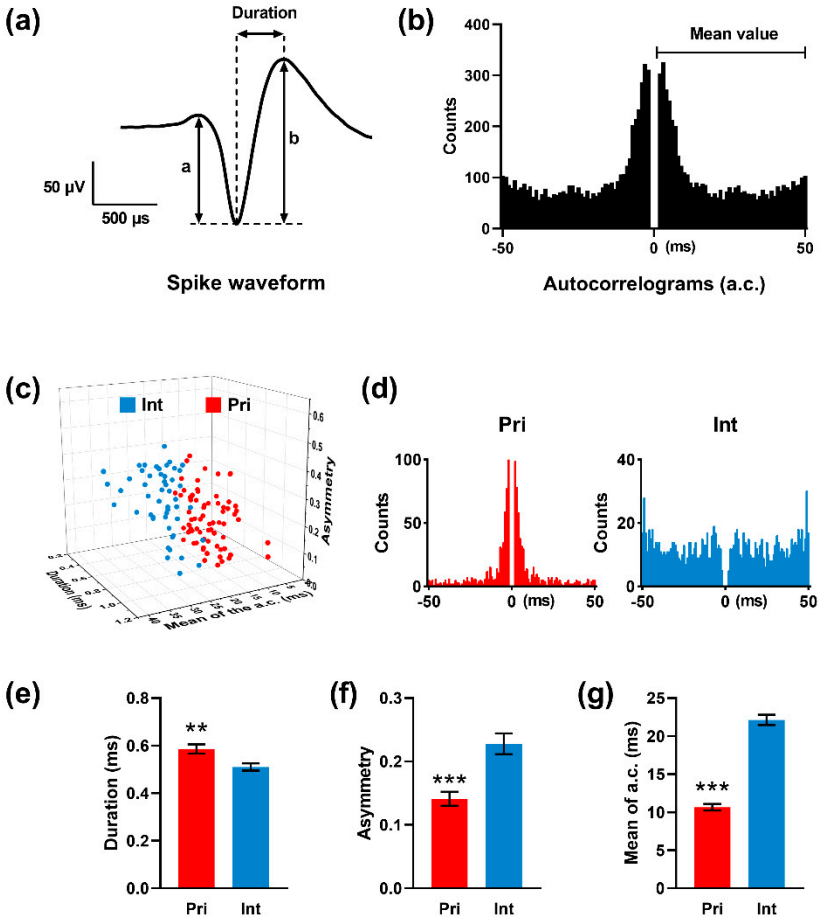

Figure S1. Classification of principal cells and interneurons. (**a**) Duration of spike waveform was the time interval between peak and valley. "a" represents the amplitude of pre-peak while "b" represents that of the post-peak. Asymmetry = (b−a)/(a + b). (**b**) Mean value of autocorrelograms in 50 ms was the third parameter for classification. (**c**) K-means clustering with duration, asymmetry and the mean of autocorrelograms. (**d**) In the present study, the autocorrelograms of principal cells showed peaks at 2–5 ms, whereas those of interneurons distributed with no apparent peaks. (**e**) The spike durations of principal cells and interneurons were 0.58 ± 0.16 ms and 0.50 ± 0.11 ms, respectively. (**f**) The asymmetry of principal cells (0.14 ± 0.09) was lower than that of interneurons (0.23 ± 0.12). (**g**) The mean value of autocorrelograms of principal cells (10.65 ± 3.58 ms) in 50 ms was significantly shorter than that of interneurons (22.13 ± 4.84 ms). The results indicated that the neural spikes were successfully divided into two groups corresponding to principal cells and interneurons. $^{**}P < 0.01$ and $^{***}P < 0.001$, unpaired *t*-test, n = 68 and 53 for pri and int respectively. Pri, principal cells. Int, interneurons.