



## Supplemental Digital Content 2.

Figure to show time-frequency spectrogram of hippocampal local field potentials at distal CA1 (H1 electrode) for representative wildtype (row 1) and forebrain knockout mice (row 2), during A. baseline immobility, B. 8 min after 100 mg/kg ip and C. 8 min after administration of cumulative 120 mg/kg ip ketamine. D. Overlay of power spectra of 32s of hippocampal field potentials at baseline (0 dose), 100 and 120 mg/kg ip ketamine dose. Note large power increase with ketamine dose at 30 - 60 Hz ( $\gamma_1$ ) and 60 - 100 Hz ( $\gamma_2$ ) frequency, more for wildtype than knockout mouse.