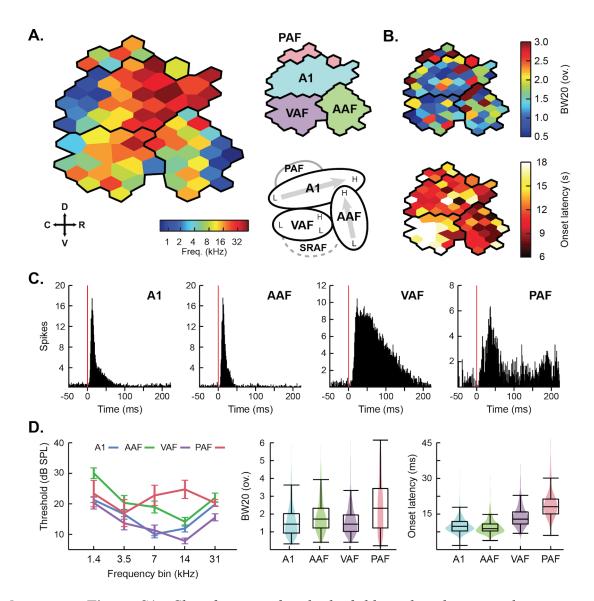
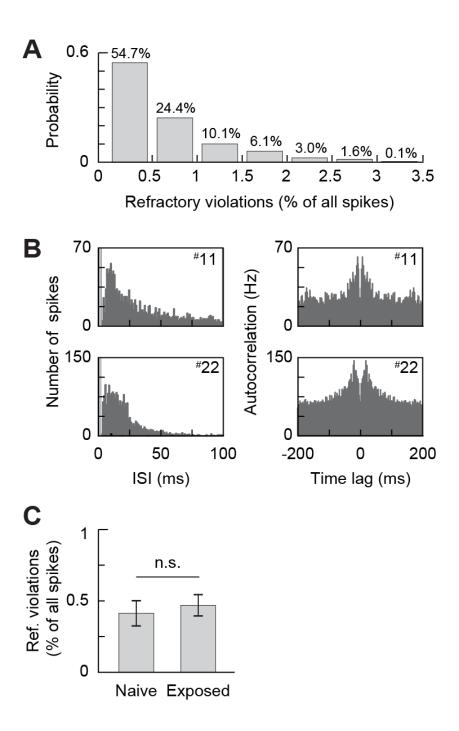


## Supplementary Material



**Supplementary Figure S1:** Classification of multiple fields within the rat auditory cortex. (A) Example of auditory field classification for a tonotopic map from a representative rat with separate fields outlined in black (L = Tuning to low sounds, H = Tuning to high sounds). SRAF was not distinguishable from VAF in our data, so the presumed location of SRAF is represented by a dotted line. (B) Receptive field bandwidths 20dB SPL above threshold (top) and onset latencies (bottom) for the same rat as in A. (C) Average tone-evoked peri-stimulus time histograms (PSTH) for each field from a single rat. N sites per field: 26 A1, 7 AAF, 11 VAF, 2 PAF. (D) Average receptive field threshold (left), distribution of receptive field bandwidth 20dB SPL above threshold (middle), and distribution of onset latency (right) for 24 rats. N sites per field: 701 A1, 292 AAF, 342 VAF, 174 PAF. A1 = primary auditory cortex, AAF = anterior auditory field, VAF = ventral auditory field, PAF = posterior auditory field, SRAF = suprarhinal auditory field.



**Supplementary Figure S2:** Quality assessments for spike sorting. (A) Histogram of the fraction of refractory period violations out of all spikes for 2017 identified clusters in A1, AAF, VAF, and PAF. (B) Representative histograms for two isolated units (#11 and #22) of inter-spike interval (ISI) times (left) and autocorrelation functions (right). Bin widths are 1ms and gray shaded line represents the 2ms refractory period bin. (C) Mean fraction of refractory period violations out of all spikes for experimental groups. No difference was found between groups using a mixed-effects test F(1,41.13) = 0.63, p = .4297, n = 2017 units within 45 positions and 24 rats. Error bars represent S.E.M. Number of animals, recording positions, and units per group: Naïve 11,20,884, Exposed 13,25,1133.