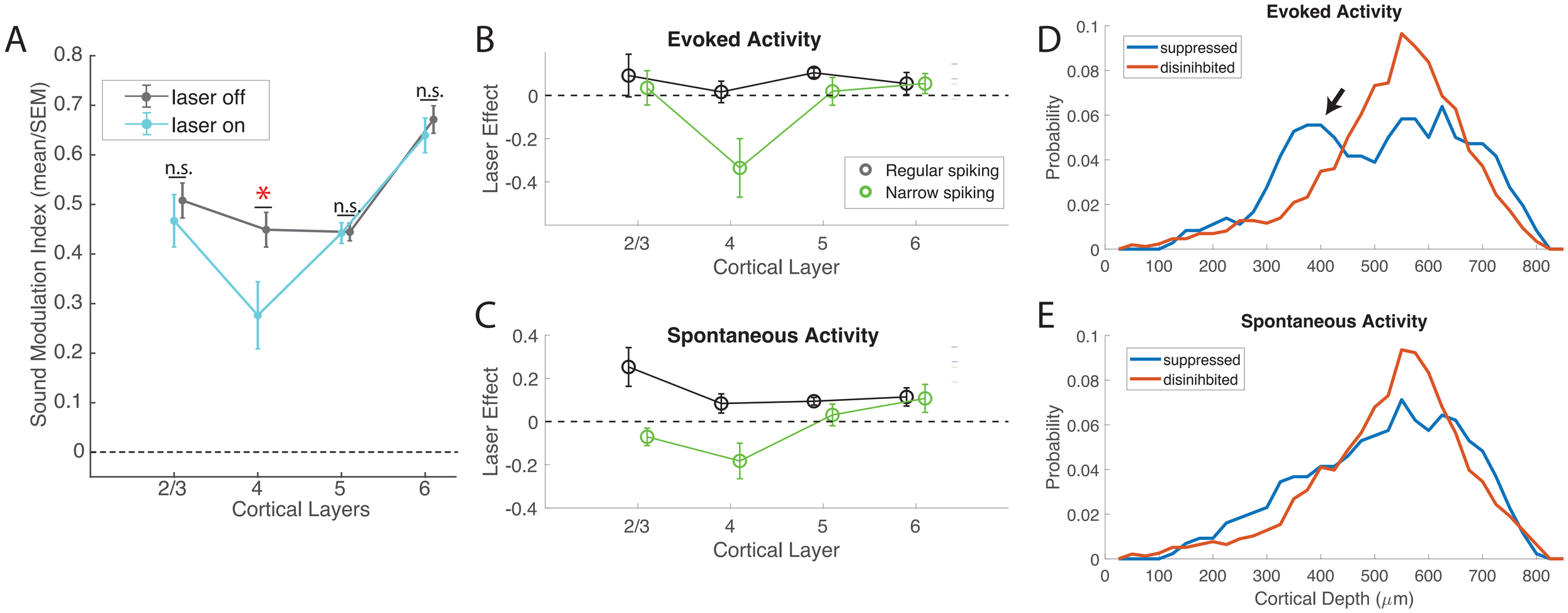

Figure 4. Effects of VIP activation are strongest in layer 4.
A. Mean sound modulation index during laser-on and laser-off trials, across cortical layers. VIP activation significantly suppressed modulation of neural activity by sound in layer 4, but not other layers. L2/3 laser-off 0.51 ± 0.04, laser-on 0.47 ± 0.05, n = 22; L4 laser-off 0.45 ± 0.04, laser-on 0.28 ± 0.07, n = 34; L5 laser-off 0.44 ± 0.02, laser-on 0.44 ± 0.02, n = 122; L6 laser-off 0.67 ± 0.03, laser-on 0.64 ± 0.03, n = 45; chi-squared = 14.47, p = 0.0023, z = -3.25, p = 0.001; r =0.40).
B. The effect of VIP activation on sound modulation in layer 4 was driven by evoked activity in narrow-spiking neurons. Laser effect is the difference in evoked activity between laser-on and laser-off trials, normalized to each cell's peak laser-off firing rate. Evoked activity in layer 4 was significantly suppressed by VIP activation (STATS).
C. Laser effect for spontaneous activity was similar across all cortical layers (STATS)..
D. Depth distribution of cells that were either suppressed or disinhibited by VIP activation, for evoked activity. Peak density of disinhibited cells was in layer 5; suppressed cells showed an additional peak in layer 4.
E. Depth distributions of suppressed and disinhibited cells for spontaneous activity were similar to each other. Peak densities were in layer 5.