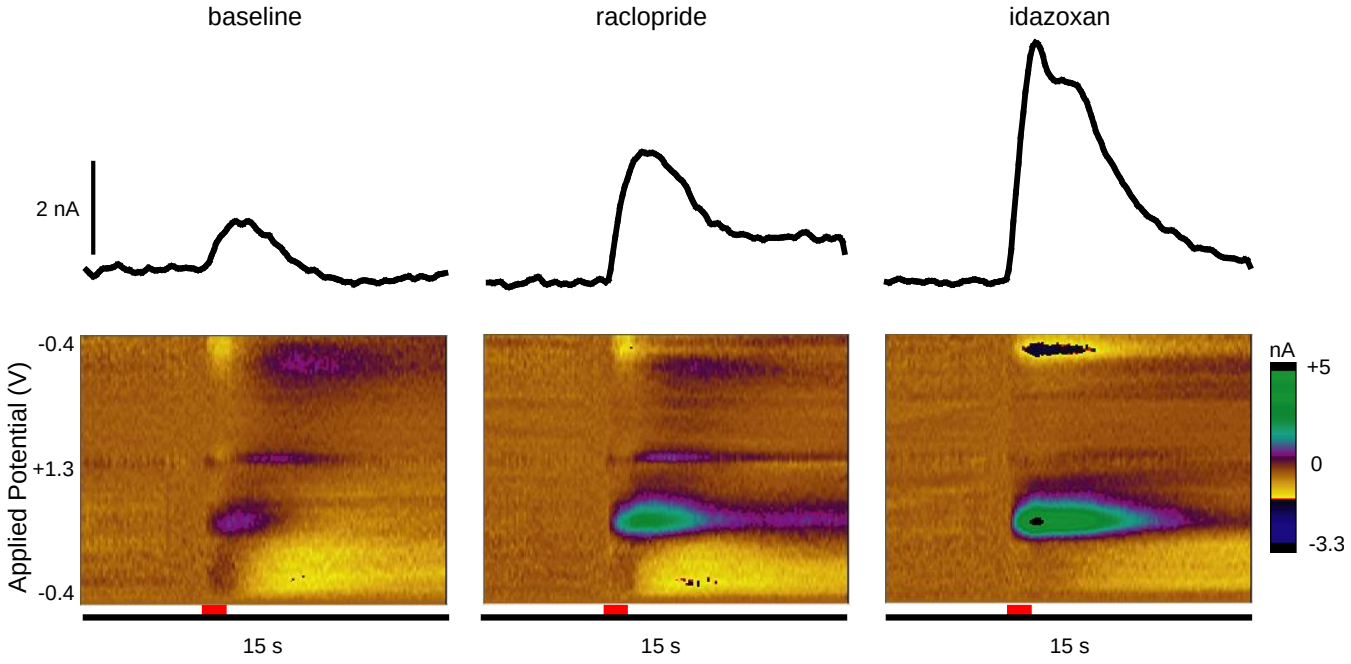
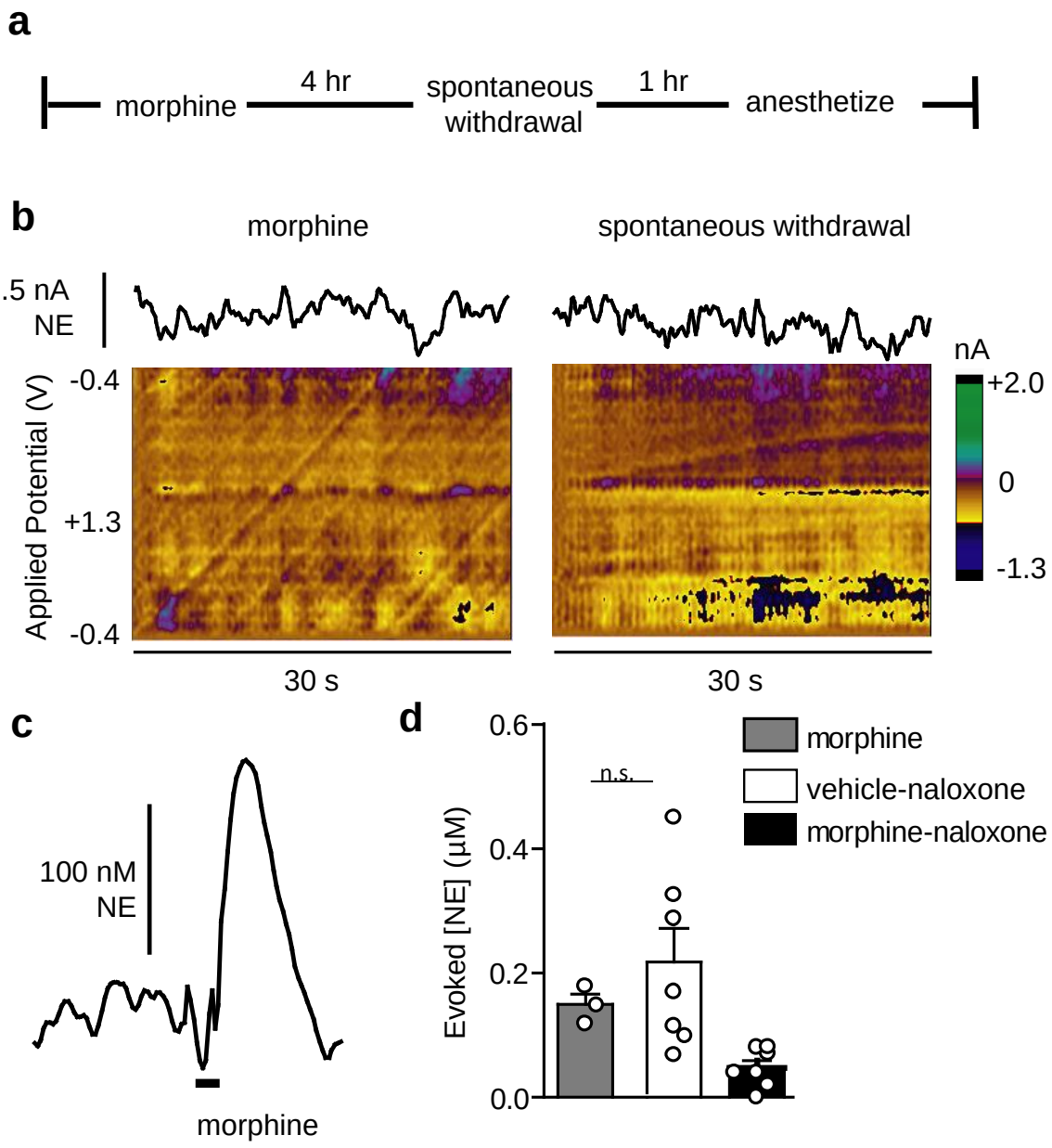
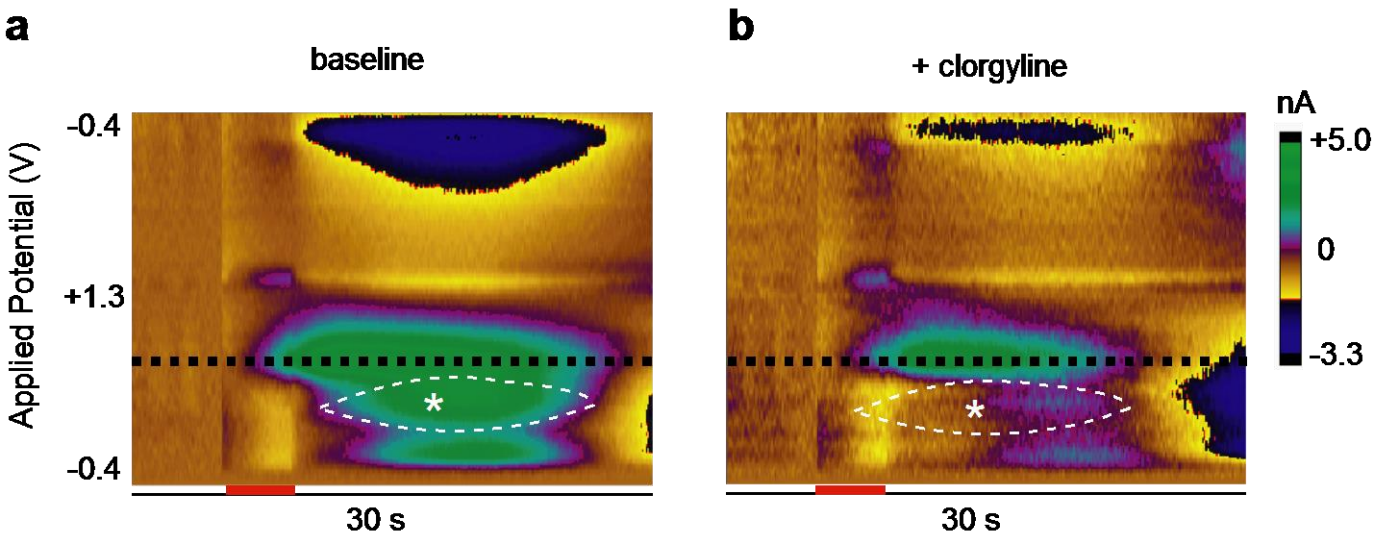


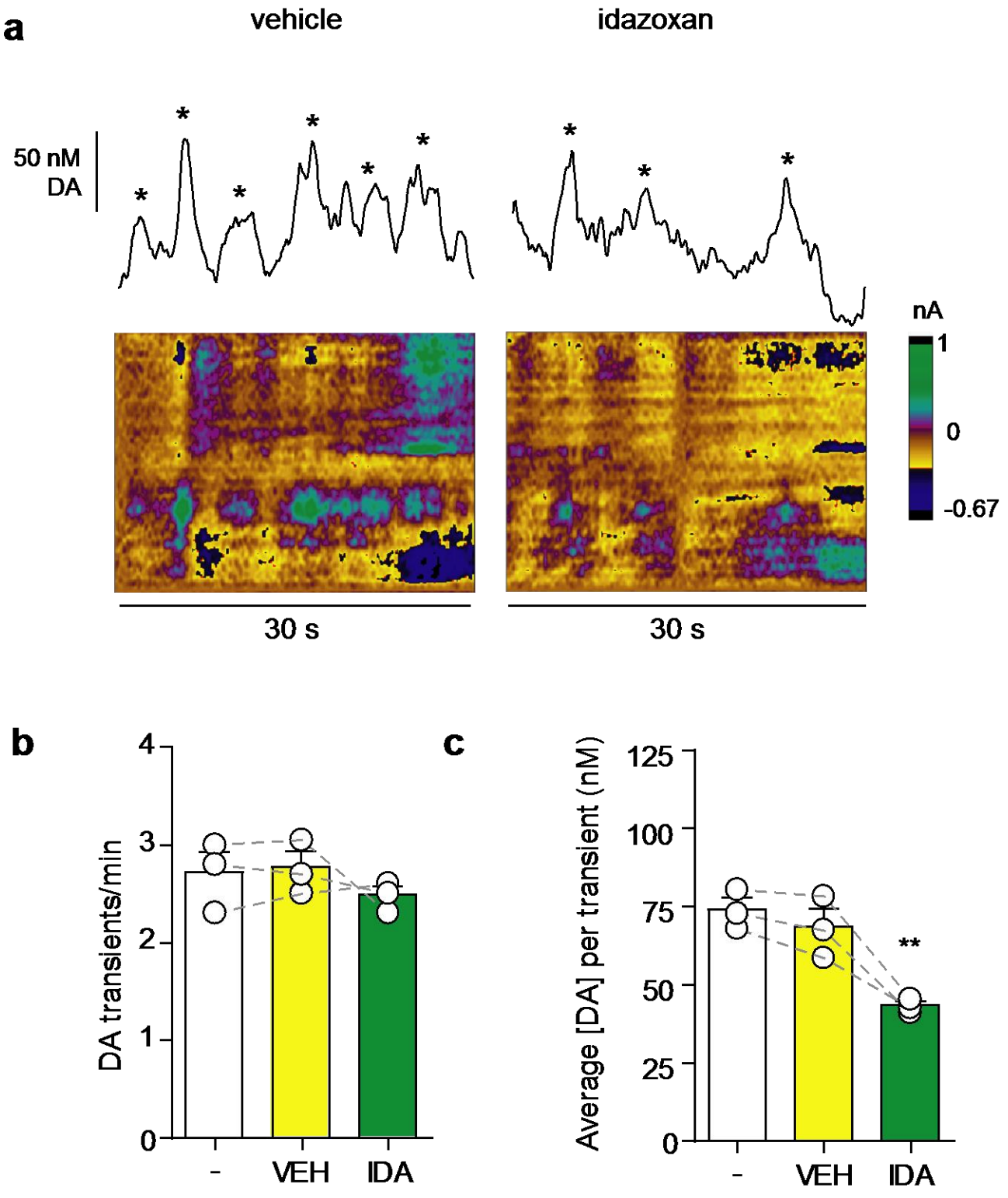
Supplemental Figure 1. Mixed catecholamine recording locations respond to dopamine and norepinephrine drugs. Representative location of electrically evoked catecholamine release under baseline, 2 mg/kg D2 antagonist raclopride, and 5 mg/kg α_2 antagonist idazoxan. Signals that responded in this way were excluded from analysis.



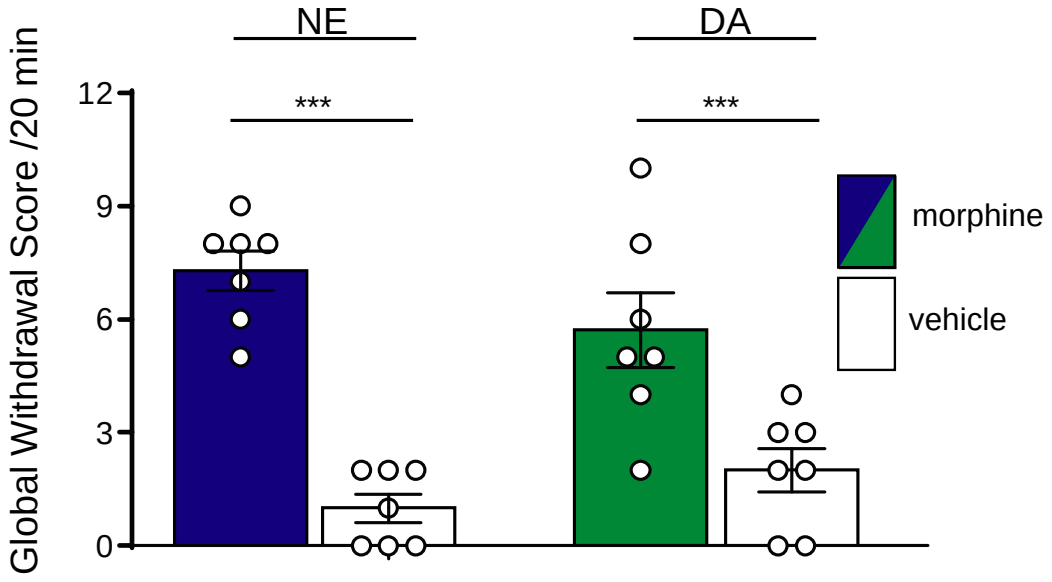
Supplemental Figure 2. Norepinephrine release does not occur during in the vBNST during spontaneous opiate withdrawal. (a) Experimental timeline. (b) Representative color plots and extracted norepinephrine (NE) current during morphine, and 4 hr later during spontaneous withdrawal (without naloxone). (c) Representative electrically evoked NE after spontaneous withdrawal (d) Average ± SEM evoked NE in animals after treatment with morphine, vehicle+naloxone, and morphine+naloxone with data from all subjects overlaid



Supplemental Figure 3. The monoamine oxidase inhibitor clorgyline suppresses oxidative current accompanying norepinephrine release. (a) A 30 Hz, 120 pulse electrical stimulation (red bar) elicits norepinephrine release accompanied by positive current at ~+0.4V (asterisk). The black hashed line denotes the oxidation peak of norepinephrine (~+0.6V). (b) Inhibition of monoamine oxidase with clorgyline (75 mg/kg i.p.) attenuates the current at ~+0.4V, suggesting oxidative current at this potential is due to a catecholamine metabolite.



Supplemental Figure 4. Idazoxan decreases average dopamine transient concentrations. (a) Representative dopamine (DA) transients during vehicle (VEH), and after 5 mg/kg idazoxan (IDA) . Principal component analysis identified concentrations marked with asterisks as DA transients. (b) DA transient frequency during baseline, after VEH, and after IDA. (c) Average DA transient concentration during baseline, after VEH, and after IDA. **, *P* <0.01. One-way repeated measures ANOVA with Bonferroni post-hoc.



Supplemental Figure 5. Global withdrawal score in morphine-naloxone (blue/green) or vehicle-naloxone (white) treated animals. Average ±SEM with individual subjects overlaid. Two-way ANOVA with Bonferroni post-hoc. ***, P<0.0001.