

SUPPLEMENTARY INFORMATION

Antidepressant-like effect of losartan involves TRKB transactivation from angiotensin receptor type 2 (AGTR2) and recruitment of FYN

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LIST OF SUPPLEMENTARY MATERIALS

Supplementary Materials and Methods

Figure S1. Locomotor activity of animals.

Figure S2. Histological sites of injection.

References

Supplementary Material and Methods

Open Field Test (OFT) Locomotor activity was analyzed as described previously (Diniz et al, 2016). Locomotor activity might be a confounding factor in the FST, thus independent groups of animals were submitted to OFT. The apparatus consisted of a wooden box (72cm x 72cm x 40cm) with floor divided into 16 equal squares (18cm x 18cm). Animals were initially centered on the box and the overall number of complete body crossing was measured by 5 min. The box was cleaned up with 70% alcohol solution and dried before next session. Experiments were recorded, and an expert blinded to the treatment analyzed locomotor activity. Drug administration followed the same temporal schedule described for animals exposed to forced swimming test.

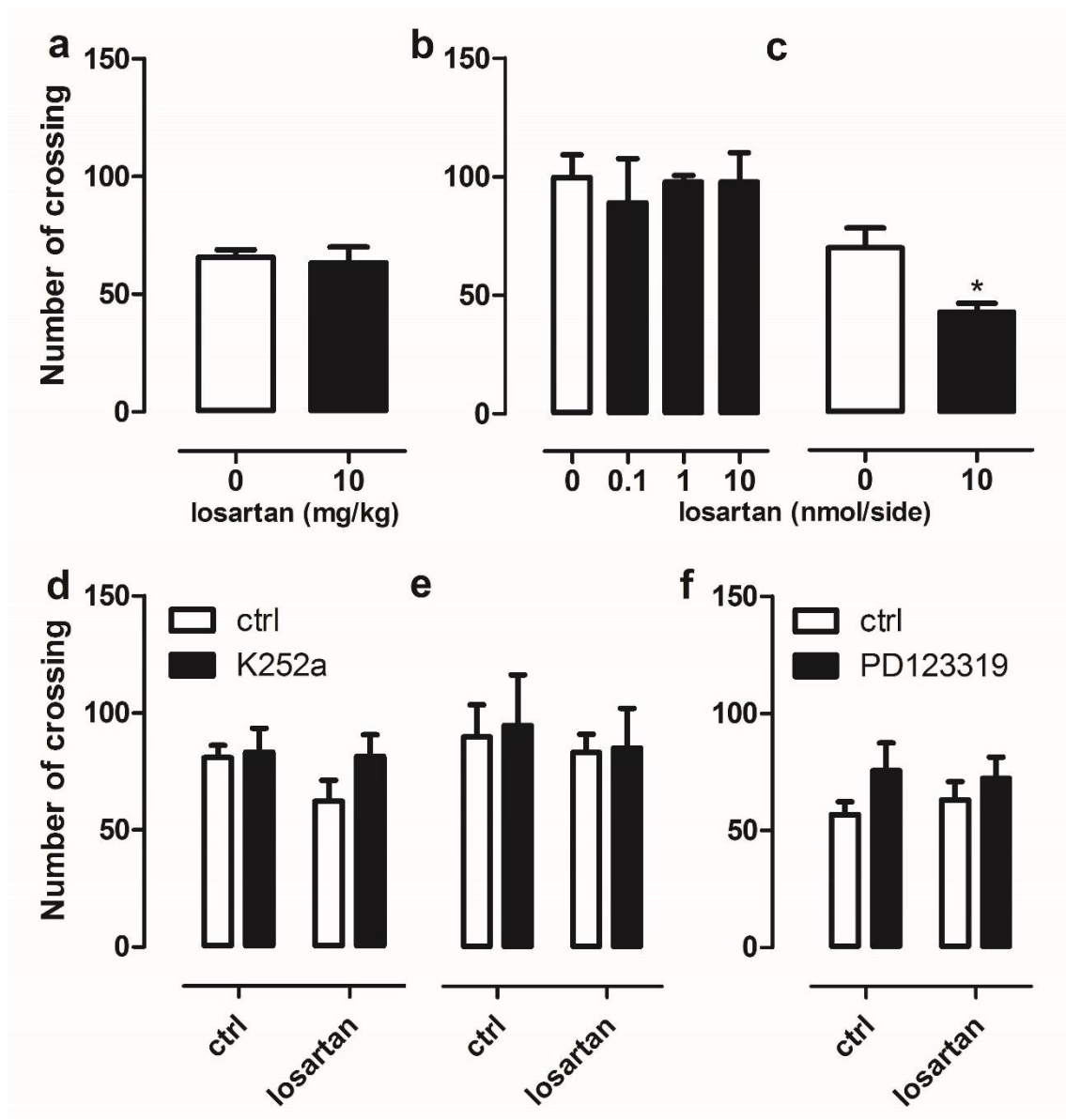
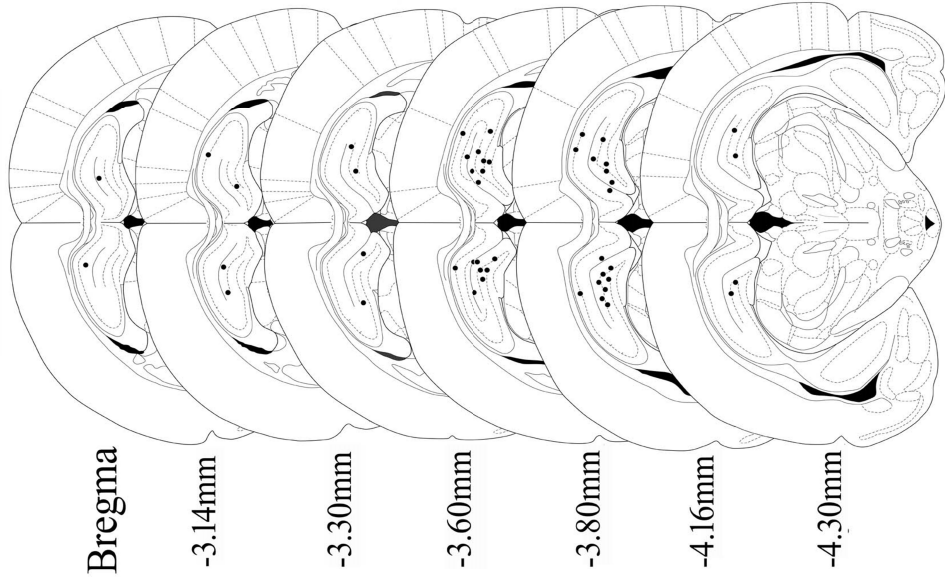
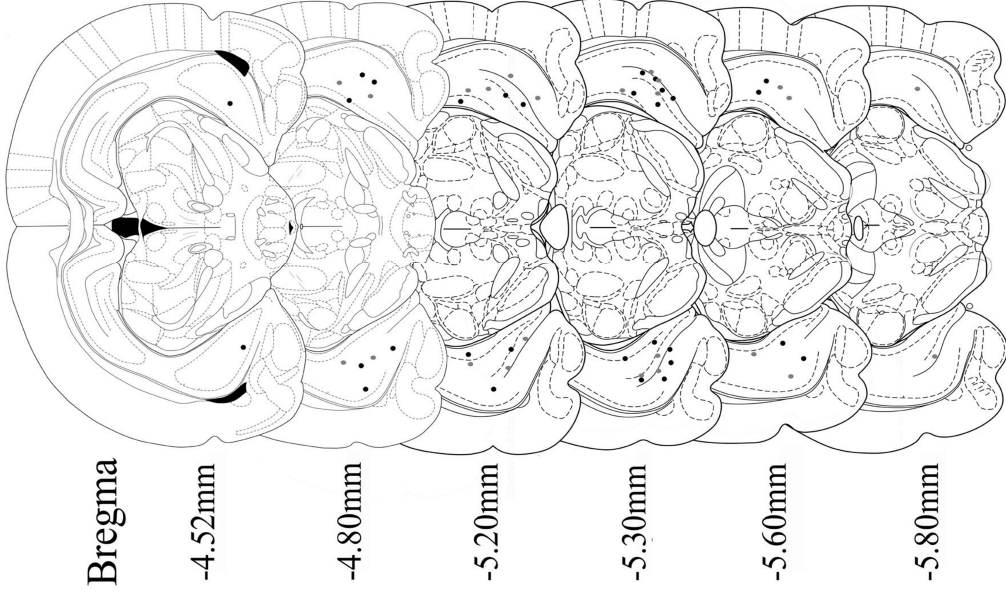


Figure S1. Locomotor activity of animals. (a) Losartan was administered i.p 1h before OFT at 0 or 10mg/kg (n=6/group; $t_{10} = 0.313$, $p > 0.05$). Losartan was infused 15min before OFT into (b) vHC (n=3-4/group; $F_{3,11} = 0.161$, $p > 0.05$) or into (c) PL (n=5/group; $t_8 = 2.920$, $p < 0.05$). There was no any interaction between first systemic injection of losartan or vehicle with second injection of K252a or vehicle infused into (d) PL (n=5-6/group; $F_{1,19} = 0.951$, $p > 0.05$) or into (e) vHC (n=5-6/group; $F_{1,19} = 0.01$, $p > 0.05$). (f) There was also no any interaction between first systemic injection of losartan or vehicle with second injection of PD123319 or vehicle infused into PL (n=5-6/group; $F_{1,17} = 0.291$, $p > 0.05$). Losartan was administered 1h before FST and either K252a or PD was bilaterally infused 20min before OFT. Data are expressed as mean \pm SEM of number of crossings; * $p < 0.05$ compared to control group.

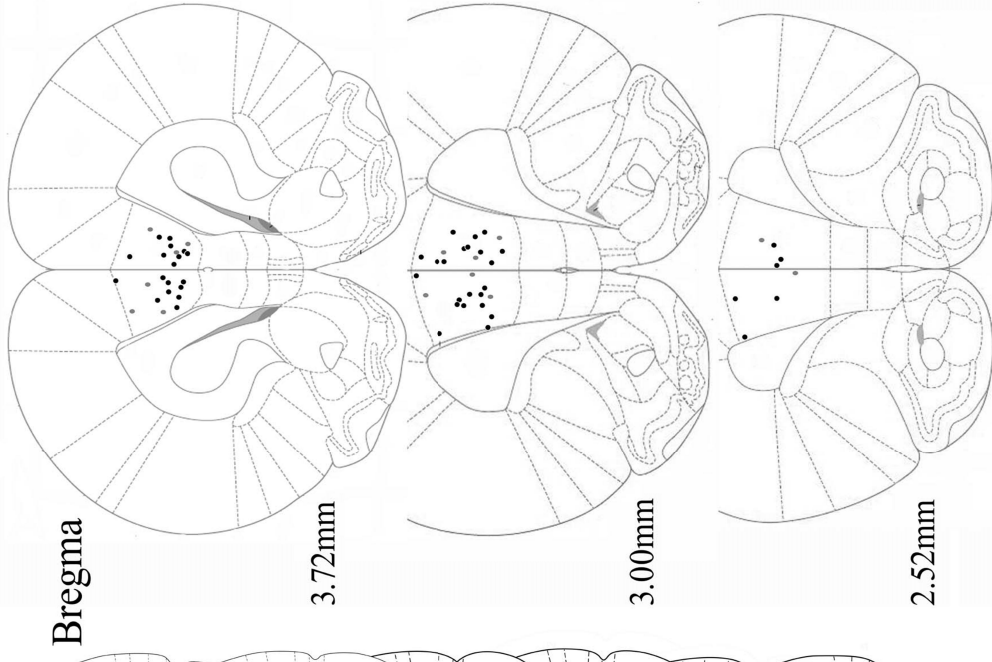
a Dorsal hippocampus



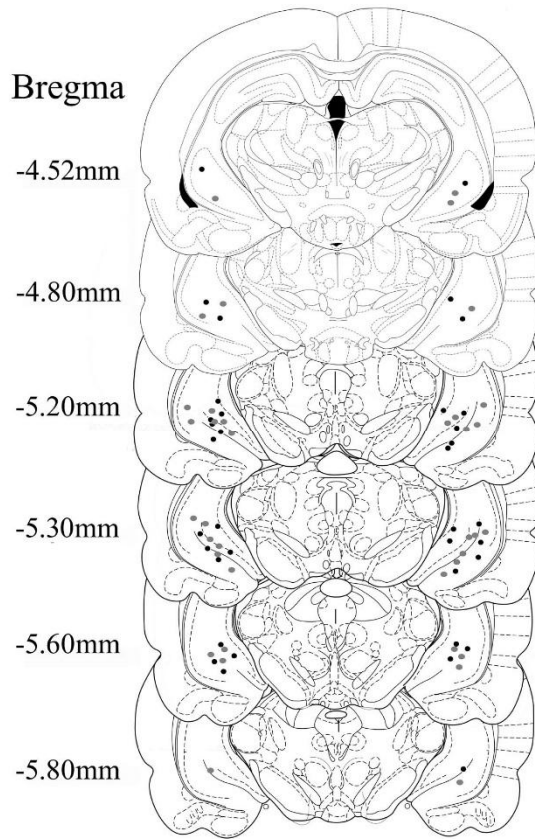
Ventral hippocampus



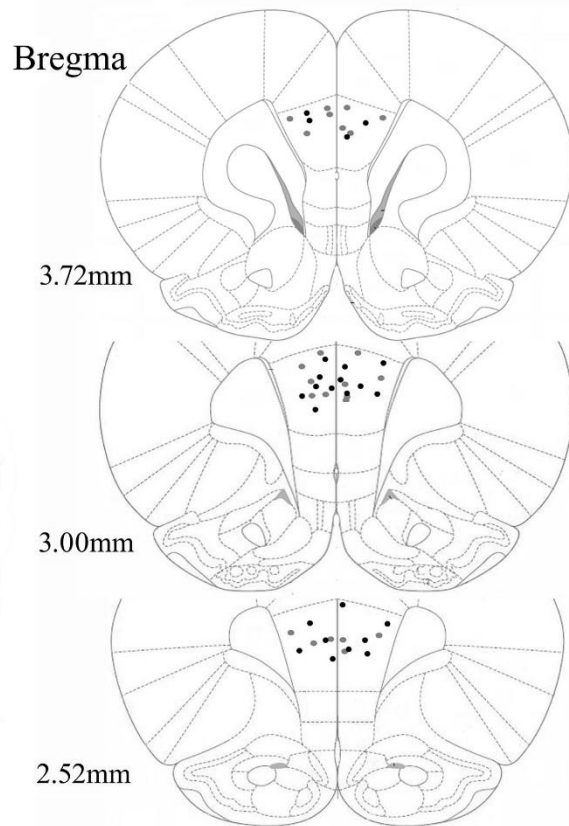
Prefrontal cortex



b **Ventral hippocampus**



Prefrontal cortex



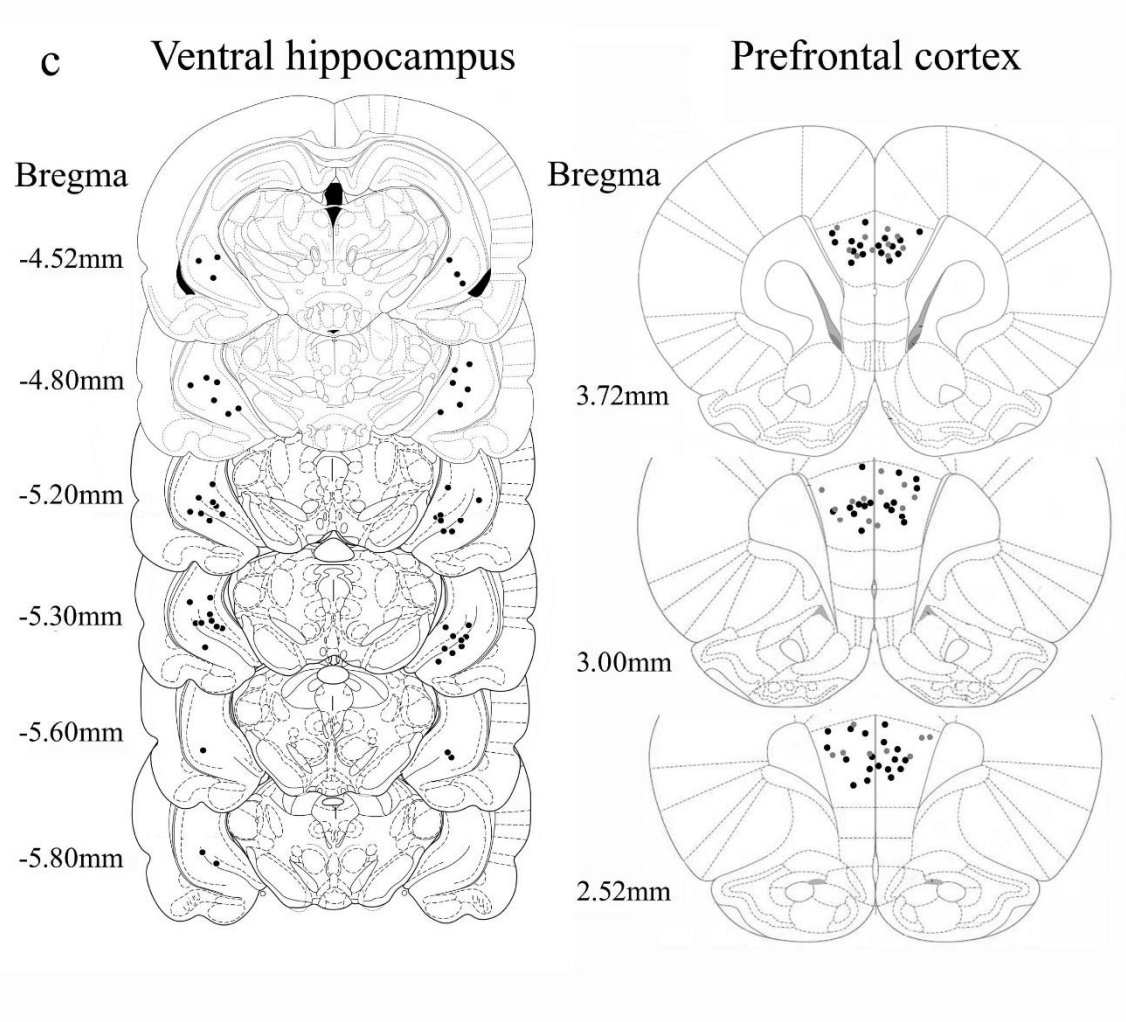


Figure S2. Histological sites of injection. Sites of (a) losartan, (b) K252a and (c) PD123319 brain infusions are discriminated in prelimbic prefrontal cortex, dorsal and ventral hippocampus. Black circles are referred to forced swimming experiments and gray circles to open field test. Due to overlap, points represented in diagram are fewer than total number of rats used. Sites of injection were inserted in diagrams based on the atlas of Paxinos and Watson, 1997.

References

- Diniz CR, Casarotto PC, & Joca SR (2016) NMDA-NO signaling in the dorsal and ventral hippocampus time-dependently modulates the behavioral responses to forced swimming stress. *Behavioural brain research* 307:126-136.
- Paxinos G & Watson C (1997). The rat brain in stereotaxic coordinates. Compact third edition. San Diego: Academic.