

## Supplementary data

### **Quercetin reduces cortical GABAergic transmission and alleviates MK-801-induced hyperactivity**

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#### **The PDF file includes:**

**Supplementary Fig. 1.** Effects of different doses of quercetin on MK-801-induced locomotor hyperactivity in mice.

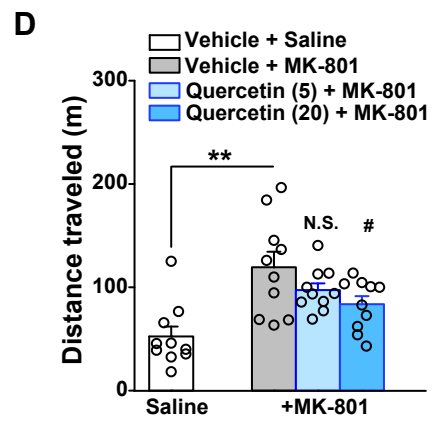
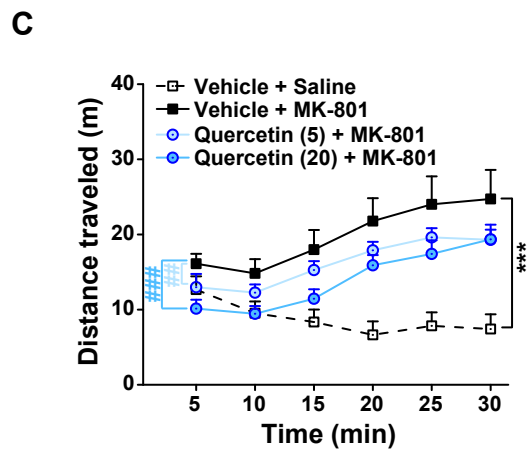
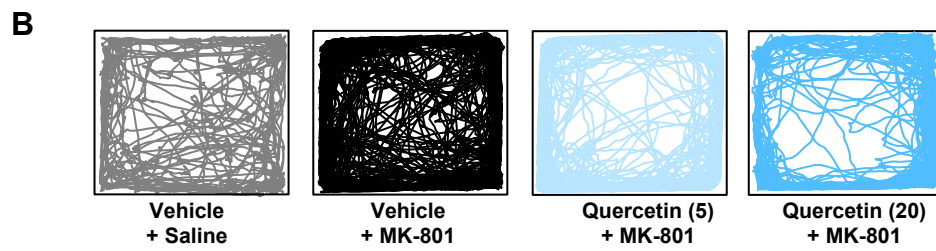
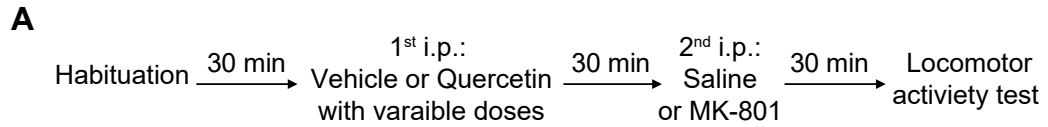
**Supplementary Fig. 2.** Effects of the combined treatment of quercetin and PTX on MK-801-induced locomotor hyperactivity in mice.

## Supplementary Figure legends

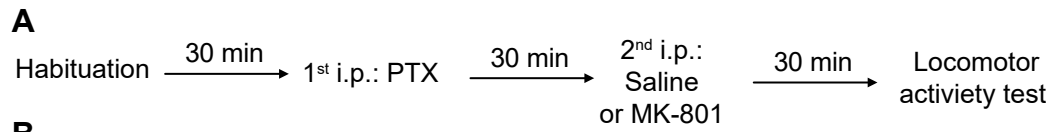
**Supplementary Fig. 1.** Effects of different doses of quercetin on MK-801-induced locomotor hyperactivity in mice. **(A)** Behavioral protocol. **(B)** Sample locomotion traces of mice with vehicle- or quercetin (5 or 20 mg/10 ml per kg)-treatment (i.p.) and then following injection (i.p.) with saline or MK-801 (0.2 mg/10 ml per kg) in addition to a 30 min test session in the open field. **(C)** The total distance of mice during each 5-min interval.  $n = 10$  for each group.  $***p < 0.001$ , saline vs. MK-801;  $##p < 0.01$ ,  $###p < 0.001$ , vehicle vs. quercetin, two way repeated-measures ANOVA. **(D)** The total distance in the 30-min session of mice followed by saline or MK-801 injection.  $n = 10$  for each group.  $**p < 0.01$ , saline vs. MK-801; N.S., not significant difference,  $#p < 0.05$ , vehicle vs. quercetin, unpaired Student's *t*-test.

**Supplementary Fig. 2.** Effects of the combined treatment of quercetin and PTX on MK-801-induced locomotor hyperactivity in mice. **(A)** Behavioral protocol. **(B)** Sample locomotion traces of mice with PTX (1 mg/10 ml per kg) alone or plus quercetin (50 mg/10 ml per kg)-treatment (i.p.) and then following injection (i.p.) with saline or MK-801 (0.2 mg/10 ml per kg) in addition to a 30 min test session in the open field. **(C)** The total distance of mice during each 5-min interval.  $n = 10$  for each group.  $***p < 0.001$ , saline vs. MK-801;  $###p < 0.001$ , vehicle vs. quercetin, two way repeated-measures ANOVA. **(D)** The total distance in the 30-min session of mice followed by saline or MK-801 injection.  $n = 10$  for each group.  $**p < 0.01$ , saline vs. MK-801;  $###p < 0.05$ , PTX vs. PTX + quercetin, unpaired Student's *t*-test.

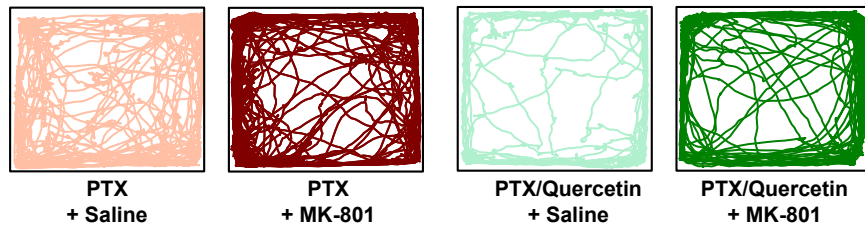
# Supplementary Figure 1



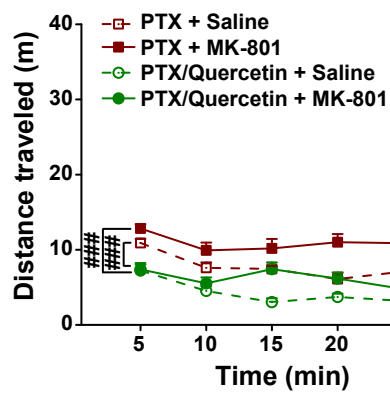
## Supplementary Figure 2



**B**



**C**



**D**

