

Newly-developed dopamine D₃ receptor antagonists, R-VK4-40 and R-VK4-116, do not potentiate cardiovascular effects of cocaine or oxycodone in rats

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Supplementary Materials

Results

R-VK4-40 and R-VK4-116 interactions with oxycodone and cocaine

Figure S1 shows time courses of the interactions between *R*-VK4-40 (20 mg/kg, i.p.), *R*-VK4-116 (25 mg/kg, i.p., each administered 30 min prior to telemetry sessions) or oxycodone alone (1 mg/kg, i.p.) on blood pressure, heart rate, locomotor activity and body temperature. Compared to oxycodone alone, the combination of *R*-VK4-40 with oxycodone reduced blood pressure at the 10 – 30 min time points, as well as 50, 70, and 90 min time points, and reduced heart rate at all time points ($p < 0.05$). The combinations of *R*-VK4-40 and *R*-VK4-116 with oxycodone also reduced body temperature compared to oxycodone alone at all time points ($p < 0.05$).

Figure S2 shows time courses of the interactions between *R*-VK4-40 (20 mg/kg, i.p.), *R*-VK4-116 (25 mg/kg, i.p., each administered 30 min prior to telemetry sessions) or cocaine alone (10 mg/kg, i.p.) on blood pressure, heart rate, locomotor activity and body temperature. Compared to cocaine alone, the combination of *R*-VK4-40 with cocaine reduced blood pressure at the 10 – 30 min time points, as well as 50 - 60 min time points, reduced heart rate at all time points with the exception of the last 20 minutes of the session, and reduced activity from 40 – 110 minutes ($p < 0.05$). The combination of *R*-VK4-116 with cocaine reduced heart rate compared to cocaine alone during the first 10 min of the session ($p < 0.05$). The combinations of *R*-VK4-40 and *R*-VK4-116 with cocaine also reduced body temperature compared to cocaine alone at nearly all time points ($p < 0.05$).

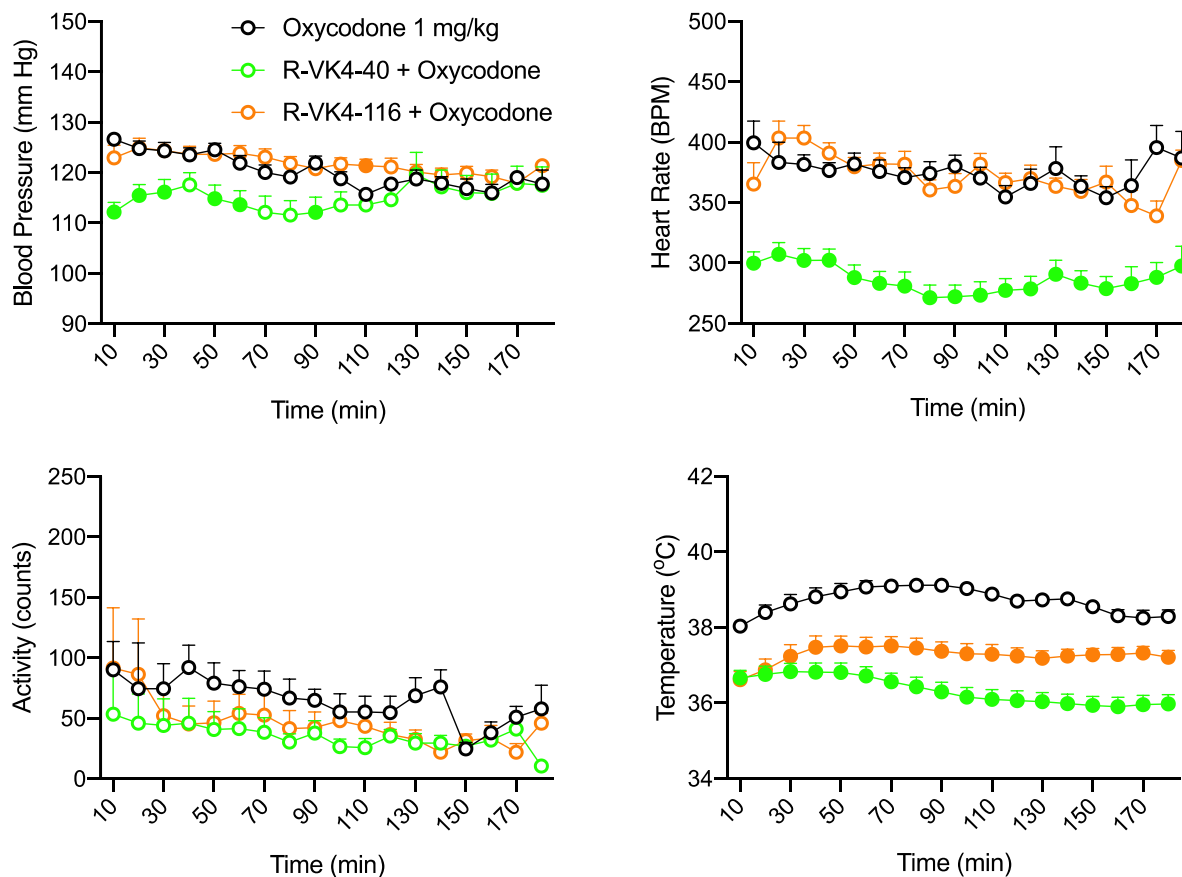


Figure S1. Time course data showing effects of oxycodone alone (1 mg/kg, i.p.) or *R*-VK4-40 (20 mg/kg, i.p.) and *R*-VK4-116 (25 mg/kg, i.p.; both administered 30 min prior to telemetry session) in the presence of oxycodone (1 mg/kg, i.p.) on blood pressure (mean arterial pressure), heart rate (beats per minute), activity levels and body temperature. Filled symbols represent statistically significant differences from oxycodone alone ($p < 0.05$).

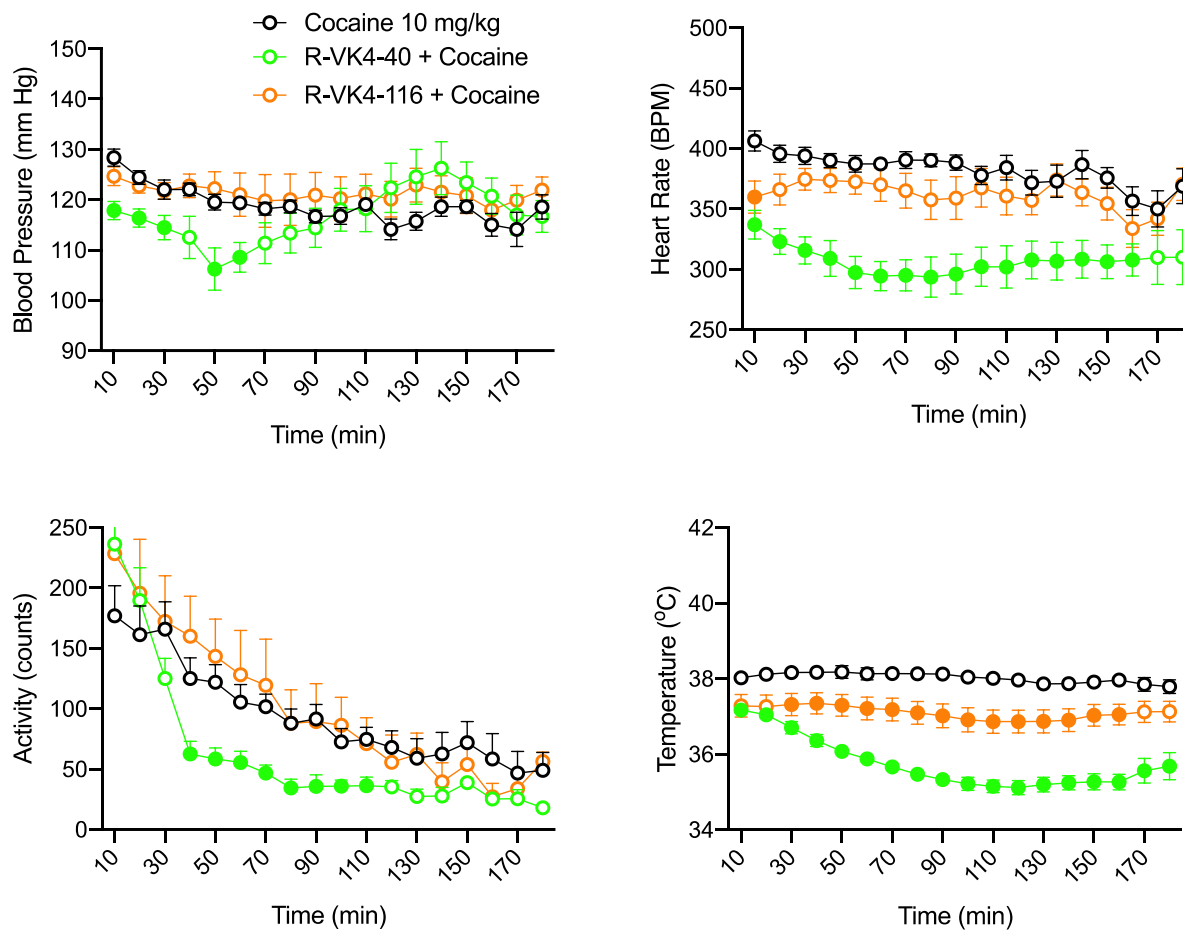


Figure S2. Time course data showing effects of cocaine alone (10 mg/kg, i.p.) or *R*-VK4-40 (20 mg/kg, i.p.) and *R*-VK4-116 (25 mg/kg, i.p.; both administered 30 min prior to telemetry session) in the presence of cocaine (10 mg/kg, i.p.) on blood pressure (mean arterial pressure), heart rate (beats per minute), activity levels and body temperature. Filled symbols represent statistically significant differences from cocaine alone ($p < 0.05$).