

Pharmacological Profile of MP-101, a Novel Non-racemic Mixture of R- and S-dimiracetam with Increased Potency in Rat Models of Cognition, Depression and Neuropathic Pain

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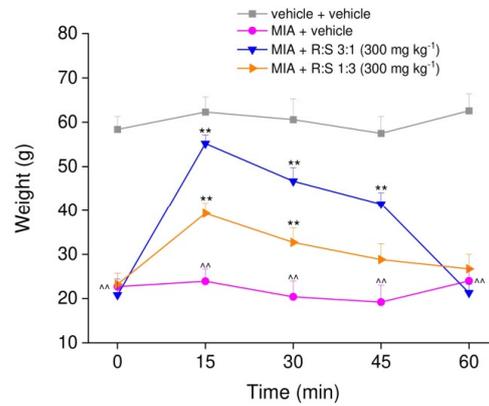
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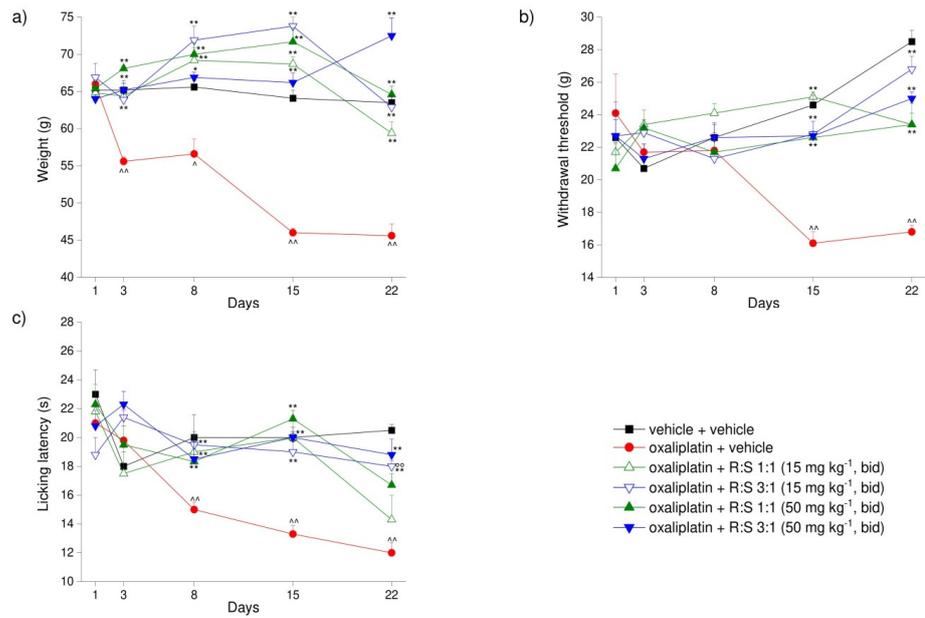
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Supplementary Figure S1. Evaluation of the effects of R:S 3:1 and R:S 1:3 against MIA-induced mechanical hyperalgesia. Sodium monoiodoacetate (MIA) 2 mg/25 μ L was injected into the tibio-tarsal joint of rats on day 1. Tested mixtures were administered acutely 14 days after MIA administration at the dose of 300 mg kg⁻¹ *per os*. Control animals were treated with vehicles. Mechanical hyperalgesia was measured on the ipsilateral paw by the Paw pressure test. Results are expressed as mean \pm S.E.M. of 8 rats analysed in 4 different experimental sets. Statistical analysis was one-way ANOVA followed by Bonferroni's post hoc comparison. ^{^^^}P<0.001 vs vehicle + vehicle treated animals; ^{**}p<0.01 vs MIA + vehicle treated animals.



Supplementary Figure S2. Evaluation of the acute effects of R:S 1:1 and R:S 3:1 against oxaliplatin-induced neuropathic pain. Oxaliplatin (2.4 mg kg⁻¹ i.p.) was administered on days 1-15, for a total of 11 injections. R:S 1:1 and R:S 3:1 were dissolved in 1% CMC and were daily *per os* administered from day 1 until day 22 (15 and 50 mg kg⁻¹ bid, in the morning and in the evening). Control animals were treated with vehicles. In the graphs are represented the behavioral measurements performed 1 h after treatments. The pain relieving effects of R:S 1:1 and R:S 3:1 was assessed by a) Paw pressure test, b) von Frey test and c) Cold plate at the indicated time points. Each value represents the mean \pm S.E.M. of 6 rats. Statistical analysis was one-way ANOVA followed by Bonferroni's post hoc comparison. [^] p < 0.05; ^{^^} p < 0.01 vs vehicle + vehicle; *p < 0.05 and **p < 0.01 vs oxaliplatin + vehicle; ^{°°} p < 0.01 vs oxaliplatin + R:S 1:1 15 mg kg⁻¹.