



Short communication

Antidepressant-like effect of combined treatment with selective σ receptor agonists and a 5-HT_{1A} receptor agonist in the forced swimming test in rats

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Abstract:

The interaction between the selective sigma (σ) receptor agonists and 8-OH-DPAT, a serotonin (5-HT)_{1A} receptor agonist, was examined in the forced swimming test in rats. The results indicate that joint administration of DTG (5 mg/kg) or SA4503 (3 mg/kg), the selective σ_1/σ_2 - or σ_1 -receptor agonists, respectively, and 8-OH-DPAT (0.1 or 0.3 mg/kg) induces an antidepressant-like effect. The doses of sigma agonists and 8-OH-DPAT used in the study were inactive *per se* in this model. The effect of DTG and 8-OH-DPAT co-administration was partly counteracted by WAY 100635 (0.1 mg/kg) as well as by BD 1047 (3 mg/kg), a 5-HT_{1A} and σ_1 receptor antagonists, respectively, suggesting the involvement of both receptor types in the anti-immobility effect in rats.

Key words:

σ ligands, 8-OH-DPAT, WAY 100635, forced swimming test, rats
