Abstract

Recently, sigma-1 receptor modulators have been considered drugs with an interesting therapeutic potential for the treatment of anxiety. However, there is no clear information in preclinical studies about the possible effects of sigma-1 ligands on anxiety in experimental animal models. Therefore, the present study examined the effects of (+)SKF 10,047 (2-8 mg/kg, ip), a sigma-1 agonist, on anxiety, tested in two classical laboratory models (social interaction test and elevated plus maze). (+)SKF 10,047 (8 mg/kg) produced a significant decrease of social investigation in the "social interaction test", whereas in the "elevated plus maze", the drug (4 and 8 mg/kg) provoked a significant reduction in the number of entries into open arms, as well as in the time spent in this area, as compared with the control group, without affecting motor activity. Overall, these findings indicate that (+)SKF 10,047 exhibits an anxiogenic-like profile in mice. It is suggested that anxiogenic effects of this sigma-1 ligand could be related to its potent ability to modulate diverse neurotransmitter systems involved in anxiety regulation.