Abstract

Recent studies point to a major role for α2-containing GABA-A receptors in modulating anxiety. However, the possible implication of GABA-A receptors containing the α3 subunit on anxiety is less known. The aim of this study was to examine the effects of SB-205384 (0.5-4 mg/kg, ip), an α3 subunit positive modulator of GABA-A receptor, on anxiety tested in the elevated plus-maze in male mice, using classical and ethological parameters. Mice treated with SB-205384 showed an increase in the frequency of entries and the time spent in open arms, as well as a reduction in the time spent in closed arms, as compared with the control group. A notable increase of «head-dipping» unprotected and a reduction of «stretched-attend posture» protected was also evident. These findings indicate that SB-205384 exhibits an anxiolytic-like profile in the elevated plus-maze test, suggesting that GABA-A receptors which contain the α3 subunit might be involved in regulation anxiety.