Short communication

Antidepressant-like effect of PRE-084, a selective \( \sigma_1 \) receptor agonist, in Albino Swiss and C57BL/6J mice

Grażyna Skuza, Zofia Rogóź

Department of Pharmacology, Institute of Pharmacology, Polish Academy of Sciences, Smeńska 12, PL 31-343 Kraków, Poland

Correspondence: Grażyna Skuza, e-mail: skuza@if-pan.krakow.pl

Abstract:
PRE-084, a selective \( \sigma \) receptor agonist, exhibited an antidepressant-like effect in the forced swim test (FST) in Albino Swiss and C57BL/6J mice. This effect was counteracted by BD 1047 (5 and 10 mg/kg) but not by SM-21 (3 and 10 mg/kg), which are \( \sigma_1 \)- and \( \sigma_2 \)-receptor antagonists, respectively. The results indicated that PRE-084 has an antidepressant-like effect in C57BL/6J mice, to a lesser extent, in Albino Swiss mice. These results support the idea that \( \sigma_1 \)-receptors, but not \( \sigma_2 \)-receptors, contribute to the mechanism of antidepressant activity of \( \sigma \) agonists in FST.

Key words:
\( \sigma \)-receptor agonist, PRE-084, \( \sigma_1 \)- and \( \sigma_2 \)-receptor antagonists, BD 1047, SM 21, forced swim test, mice