Short communication

Antidepressant-like effects of baclofen and LY367385 in the forced swim test in rats

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Abstract:
Baclofen, an agonist of GABA_B receptors and LY367385, an antagonist of mGluR_5 receptors, given alone or jointly, reduced the immobility time in the forced swim test but only their separate administration enhanced motility in group of rats without hypoxia. Short-term hypoxia (2% O_2, 98% N_2, 4 min) did not change the activity of the rats in the forced swim test and it did robustly decrease the motility of these animals. LY367385 reduced the immobility time in the forced swim test but induced locomotion in rats subjected to hypoxia.

The obtained results indicated that baclofen and LY367385 given alone or jointly induce an antidepressant-like effect in the forced swim test but only LY367385 possesses such activity in rats that had undergone hypoxia. Both tested ligands are involved in the motility of rats, however, LY367385 influences hypolocomotion hypoxia-induced.

Key words:
baclofen, LY367385, hypoxia, forced swim test, open field test, rats