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Synthesis and antidepressant activity of N-substituted imidazole-۵-carboxamides in forced swimming test model

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View references (۱۰)

Abstract

Moclobemide is a selective and reversible monoamine oxidase-A inhibitor, which is used as an antidepressant. Three moclobemide analogues were synthesized by replacing moclobemide phenyl ring with substituted imidazoles. So, N-[(٤-morpholinyl) ethyl)]-١-benzyl-٢-(alkylthio) -١H-imidazole-٥-carboxamides (٧a-c) were synthesized and studied for the antidepressant activity using forced swimming test in mice. Analogues ٧a-c were found to be more potent than moclobemide. Minimum effective doses for moclobemide and analogues ٧a-c were found to be ٢٠, ٢,٥, ١,٢٥ and ٢,٥ mg/kg i.p. respectively.

Reaxys Database Information

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Author keywords

Antidepressant; Forced swimming model; Imidazolecarboxamides; MAOIs

Indexed Keywords

EMTREE drug terms: antidepressant agent; moclobemide; monoamine oxidase inhibitor; n [(٤ morpholinyl)ethyl] ١ benzyl ٢ (alkylthio) ١h imidazole ٥ carboxamide derivative; n [٢ (٤ morpholinyl)ethyl] ١ benzyl ٢ (benzylthio) ١h imidazole ٥ carboxamide; n [٢ (٤ morpholinyl)ethyl] ١ benzyl ٢ (ethylthio) ١h imidazole ٥ carboxamide; n [٢ (٤ morpholinyl)ethyl] ١ benzyl ٢ (methylthio) ١h imidazole ٥ carboxamide

EMTREE medical terms: animal experiment; animal model; article; chemical modification; controlled study; drug activity; drug dose comparison; drug efficacy; drug potency; drug structure; drug synthesis; forced swimming test; immobilization; LD ٥٠; male; mouse; nonhuman

Chemicals and CAS Registry Numbers: moclobemide, ٧١٣٢٠-٧٧-٩

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