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Explore references by research topic: Buspirone antidepressant

Candidates Selected (ID 7)

37 references were found containing "Buspirone antidepressant" as entered.

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Type: Chronic buspirone treatment decreases 5-HT_{1B} receptor densities and the serotonin transporter but increases the density of 5-HT_{2A} receptors in the bulbectomized rat model of depression: An autoradiographic study

2. Chronic buspirone treatment decreases 5-HT1B receptor densities and the serotonin transporter but increases the density of 5-HT2A receptors in the bulbectomized rat model of depression: An autoradiographic study

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Abstract

The olfactory bulbectomized (OBX) rat model is an animal model of depression. The deregulation of the serotonergic (5-HT) system is implicated in the pathophysiol. of depression. Buspirone is a partial agonist of 5-HT1A receptors and is used in the treatment of depression and anxiety. The aim of this study was to assess, in OBX rats and sham operated controls, the effect of chronic buspirone treatment on the densities of 5-HT2A and 5-HT1B receptors, as well as the 5-HT transporter (5-HTT), which are all important mediators of 5-HT transmission. Male Sprague-Dawley rats (180-240 g) were used. Two weeks following the surgeries, the rats were assigned into the saline or treatment groups, receiving either saline, or 10 or 20 mg/kg day of buspirone, for 2 wk by s.c. mini pump. Following the treatment, the rats were sacrificed. The autoradiog. expts. were performed ex vivo using [3H]5-HT for the 5-HT1B receptors, [3H]-ketanserin for the 5-HT2A receptors, and [3H]-paroxetine for the 5-HTT binding. The receptors and 5-HTT densities were quantified in 38 brain regions as well as the pineal body. Chronic treatment with buspirone produced the following 1; a decrease in the 5-HT1B densities, which was more pronounced in the Sham rats 2; an increase in the 5-HT2A receptor densities, which was more pronounced in the Sham rats, and 3; an decrease in 5-HTT densities in both groups. The results indicate differential effects of chronic antidepressant treatment on the 5-HT system regulation in the OBX model of depression and normal rats.

Indexing

Pharmacology (Section 1-11)

Concepts

5-HT agonists

5-HT1A; chronic buspirone treatment decreases 5-HT1B receptor densities and serotonin transporter but increases d. of 5-HT2A receptors in bulbectomized rat model of depression

Antidepressants

Brain

Depression

Neurotransmission

chronic buspirone treatment decreases 5-HT1B receptor densities and serotonin transporter but increases d. of 5-HT2A receptors in bulbectomized rat model of depression

Serotonin transporters

chronic buspirone treatment decreases 5-HT1B receptor densities and serotonin transporter but increases d. of 5-HT2A receptors in bulbectomized rat model of depression

Biological study, unclassified; Biological study

Brain

olfactory bulbectomy; chronic buspirone treatment decreases 5-HT1B receptor densities and serotonin transporter but increases d. of 5-HT2A receptors in bulbectomized rat model of depression

5-HT receptors

type 5-HT1A; chronic buspirone treatment decreases 5-HT1B receptor densities and serotonin transporter but increases d. of 5-HT2A receptors in bulbectomized rat model of depression

Biological study, unclassified; Biological study

5-HT receptors

type 5-HT2A; chronic buspirone treatment decreases 5-HT1B receptor densities and serotonin transporter but increases d. of 5-HT2A receptors in bulbectomized rat model of depression

Biological study, unclassified; Biological study

Substances

50-67-9 Serotonin, biological studies

chronic buspirone treatment decreases 5-HT1B receptor densities and serotonin transporter but increases d. of 5-HT2A receptors in bulbectomized rat model of depression

Biological study, unclassified; Biological study

36505-84-7 Buspirone

chronic buspirone treatment decreases 5-HT_{1B} receptor densities and serotonin transporter but increases d. of 5-HT_{2A} receptors in bulbectomized rat model of depression

Pharmacological activity; Therapeutic use; Biological study; Uses

Supplementary Terms

buspirone; antidepressant; 5HT_{1A}; receptor; agonist; 5HT_{2A}; serotonin; transporter; depression;

Citations

- 1)Al-Khatib, I; Arch Int Pharmacodyn Ther 1988, 296, 282
- 2)Benjamin, D; Life Sci 1990, 47, 195
- 3)Benmansour, S; J Neurosci 1999, 19, 10494
- 4)Bhagwagar, Z; Am J Psychiatry 2006, 163, 1580
- 5)Bhagwagar, Z; Am J Psychiatry 2007, 164, 1858
- 6)Biver, F; Br J Psychiatry 1997, 171, 444
- 7)Blier, P; J Clin Psychopharmacol 1990, 10, 13S
- 8)Blier, P; Neuropharmacology 1988, 11, S1
- 9)Blier, P; Neuropsychopharmacology 1999, 21, 91S
- 10)Blier, P; J Pharmacol Exp Ther 1993, 265, 16
- 11)Butler, J; Prog Neuropsychopharmacol Biol Psychiatry 1988, 12, 585
- 12)Caccia, S; Pharmacology 1986, 33, 46
- 13)Cairncross, K; Psychoneuroendocrinology 1979, 4, 253
- 14)Cannon, D; Biol Psychiatry 2007, 62, 870
- 15)Cassel, J; Brain Res 1995, 704, 153
- 16)Clark, M; J Neurosci 2002, 22, 4550
- 17)Cowan, W; J Neurol Neurosurg Psychiatry 1965, 28, 137
- 18)Critchley, M; Psychopharmacology (Berlin) 1992, 106, 484
- 19)Davidson, C; Neurosci Lett 1995, 188, 41
- 20)De Vivo, M; J Pharmacol Exp Ther 1986, 238, 248
- 21)Earley, B; Hum Psychopharmacol 1994, 9, 397
- 22)Esteban, S; Naunyn-Schmiedeberg Arch Pharmacol 1999, 360, 135
- 23)Fabre, L; J Clin Psychiatry 1990, 51, 55
- 24)Fuller, R; Ann NY Acad Sci 1990, 600, 68
- 25)Fuller, R; Ann NY Acad Sci, discussion 1990, 600, 79
- 26)Gobbi, M; Naunyn-Schmiedeberg Arch Pharmacol 1997, 356, 22
- 27)Goldberg, H; J Clin Psychiatry 1982, 43, 87
- 28)Gould, G; Biol Psychiatry 2007, 61, 210
- 29)Grecksch, G; Br J Pharmacol 1997, 122, 1725
- 30)Haberly, L; J Comp Neurol 1978, 178, 711
- 31)Habert, E; Eur J Pharmacol 1985, 118, 107
- 32)Han, F; Neuroscience 2008, 151, 671
- 33)Hasegawa, S; Psychopharmacology (Berl) 2005, 179, 781
- 34)Hoyer, D; Trends Pharmacol Sci 1993, 14, 270
- 35)Hrdina, P; Synapse 1993, 14, 324
- 36)Jesberger, J; Behav Neurosci 1986, 100, 256
- 37)Jesberger, J; Int J Neurosci 1988, 38, 241
- 38)Jolas, T; J Pharmacol Exp Ther 1994, 268, 1432
- 39)Judd, L; Int Clin Psychopharmacol, Suppl 1995, 4, 5
- 40)Kaiyala, K; Pharmacol, Biochem Behav 2003, 75, 769
- 41)Kelly, J; Pharmacol Ther 1997, 74, 299

- 42) Kelly, J; Pharmacol Ther 1997, 74, 299
43) Kennett, G; Eur J Pharmacol 1987, 134, 265
44) Kiss, J; Neurochem Int 2008, 52, 34
45) Lance, J; Eur Neurol 1991, 31, 279
46) Lucki, I; Neurosci Biobehav Rev 1994, 18, 85
47) Lumia, A; Brain Res 1992, 587, 181
48) Makkonen, I; Dev Med Child Neurol 2008, 50, 593
49) Mayberg, H; Br Med Bull 2003, 65, 193
50) Meltzer, C; Am J Psychiatry 1999, 156, 1871
51) Meyer, J; Psychopharmacology (Berlin) 1999, 144, 279
52) Meyer, J; Am J Psychiatry 2001, 158, 78
53) Meyer, J; Am J Psychiatry 2003, 160, 90
54) Meyer, J; Arch Gen Psychiatry 2004, 61, 1271
55) Nestler, E; Neuron 2002, 34, 13
56) Neumaier, J; Neuropsychopharmacology 1996, 15, 515
57) Nichols, D; Chem Rev 2008, 108, 1614
58) Nishi, K; Neurochem Int 2009, 54, 299
59) Norrholm, S; Neuropharmacology 2007, 53, 982
60) O'Connor, J; Nature 1994, 367, 557
61) O'Dell, S; Synapse 1990, 6, 146
62) Paxinos, G; The Rat Brain Atlas in Stereotaxic Coordinates. Compact Third Edition 1997
63) Pazos, A; Brain Res 1985, 346, 205
64) Pazos, A; Neuroscience 1987, 21, 123
65) Pellow, S; J Pharm Pharmacol 1987, 39, 917
66) Phillips, M; Biol Psychiatry 2003, 54, 515
67) Piercey, M; J Pharmacol Exp Ther 1994, 268, 1297
68) Raskin, N; N Engl J Med 1991, 325, 353
69) Reimold, M; Mol Psychiatry 2008, 13, 606
70) Rudnick, G; Biochim Biophys Acta 1993, 1144, 249
71) Sakai, Y; Neurology 2008, 70, 431
72) Sari, Y; Neurosci Biobehav Rev 2004, 28, 565
73) Sato, H; Brain Res Bull 2008, 75, 545
74) Saudou, F; Science 1994, 265, 1875
75) Schweizer, E; Psychopharmacol Bull 1986, 22, 183
76) Soares, J; J Psychiatr Res 1997, 31, 393
77) Song, C; Neuroimmunomodulation 1995, 2, 263
78) Song, C; Neurosci Biobehav Rev 2005, 29, 627
79) van Dyck, C; Nucl Med Biol 2000, 27, 715
80) van Riezen, H; Pharmacol Ther 1990, 47, 21
81) Watanabe, A; J Neurochem 2003, 85, 469
82) Watanabe, A; Brain Res Bull 2006, 69, 101
83) Willner, P; Pharmacol Ther 1990, 45, 425
84) Willner, P; Behav Pharmacol 2002, 13, 169
85) Yatham, L; Arch Gen Psychiatry 1999, 56, 705
86) Yoshimura, H; Pharmacol, Biochem Behav 1977, 6, 193
87) Zhou, D; J Neurosci Res 1998, 54, 109

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