

Cariprazine Publications 2006-2019

Non-clinical

Chemistry

[Physico-chemical characterization of a novel group of dopamine D3/D2 receptor ligands, potential atypical antipsychotic agents](#)

Deák K, Takács-Novák K, Kapás M, Vastag M, Tihanyi K, Noszál B
J Pharmaceut Biomed Anal **48**: 678-684, 2008

[Discovery of cariprazine \(RGH-188\): A novel antipsychotic acting on dopamine D3/D2 receptors](#)

Ágai-Csongor E, Domány G, Nógrádi K, Galambos J, Vágó I, Keserű GM, Greiner I, Laszlovszky I, Gere A, Schmidt É, Kiss B, Vastag M, Tihanyi K, Sággy K, Lasz J, Gyertyán I, Zájer-Balázs M, Gémesi L, M. Kapás, Z. Szombathelyi
Bioorg Med Chem Lett, **22**: 3437-3440, 2012

Neurochemistry

[Cariprazine \(RGH-188\), a dopamine D3 receptor preferring D3/D2 dopamine receptor antagonist-partial agonist antipsychotic candidate: in vitro and neurochemical profile](#)

Kiss B, Horváth A, Némethy Z, Schmidt É, Laszlovszky I, Bugovics G, Fazekas K, Hornok K, Orosz S, Gyertyán I, Ágai-Csongor É, Domány G, Tihanyi K, Adham N, Szombathelyi Z
J Pharmacol Exp Ther **333**: 328-340, 2010

[Occupancy of dopamine D2 and D3 and serotonin 5-HT1A receptors by the novel antipsychotic drug candidate, cariprazine \(RGH-188\), in monkey brain measured using positron emission tomography](#)

Seneca N, Finnema SJ, Laszlovszky I, Kiss B, Horváth A, Pásztor G, Kapás M, Gyertyán I, Farkas S, Innis RB, Halldin C, Gulyás B
Psychopharmacology **218**: 579-587, 2011

[In vitro and in vivo comparison of \[3H\]\(+\)-PHNO and \[3H\]-raclopride binding to rat striatum and lobes 9 and 10 of the cerebellum: A method to distinguish dopamine D3 from D2 receptor sites](#)


Kiss B, Horti F, Bobok A
Synapse **65**: 467-478, 2011

[Brain uptake and distribution of the dopamine D3/D2 receptor partial agonist \[11C\]-cariprazine: An in vivo positron emission tomography study in non-human primates](#)


Tóth M, Varróné A, Steiger C, Laszlovszky I, Horváth A, Kiss B, Gyertyán I, Adham N, Halldin C, Gulyás B
Synapse **67**: 258-264, 2013

[Long-Term Effects of Cariprazine Exposure on Dopamine Receptor Subtypes](#)

Choi YK, Adham N, Kiss B, Gyertyán I, Tarazi FI
CNS Spectrums **19**: 268-277, 2014

[Long-term effects of aripiprazole exposure on monoaminergic and glutamatergic receptor subtypes: comparison with cariprazine](#)  Open access

Choi YK, Adham N, Kiss B, Gyertyán I, Tarazi FI
CNS Spectrums, **22**: 484-494, 2017

[Effects of cariprazine on extracellular levels of glutamate, GABA, dopamine, noradrenaline and serotonin in the medial prefrontal cortex in the rat phencyclidine model of schizophrenia studied by microdialysis and simultaneous recordings of locomotor activity](#)  Open access

Kehr J, Yoshitake T, Ichinose F, Yoshitake S, Kiss B, Gyertyán I, Adham N

Psychopharmacology **235**: 1593–1607, 2018

[Involvement of 5-HT1A and 5-HT2A receptors but not \$\alpha\$ 2-adrenoceptors in the acute electrophysiological effects of cariprazine in the rat brain in vivo](#)

Herman A, El Mansari M, Adham N, Kiss B, Farkas B, Blier P

Mol Pharmacol, Published on October 15, 2018 as DOI: 10.1124/mol.118.113290

Pharmacology

[RGH-188, a potent D3/D2 dopamine receptor partial agonist, binds to dopamine D3 receptors in vivo and shows antipsychotic-like and procognitive effects in rodents](#)

Gyertyán I, Kiss B, Sággy K, Laszy J, Szabó G, Szabados T, Gémesi LI, Pásztor G, Zájer-Balázs M, Kapás M, Ágai-Csongor É, Domány G, Tihanyi K, Szombathelyi Z

Neurochemistry International **59**: 925-935, 2011

[Cariprazine, a dopamine D3-receptor-preferring partial agonist, block phenycyclidine-induced impairments of working memory, attention set shifting, and recognition memory in the mouse.](#)

Zimnisky R, Chang G, Gyertyán I, Kiss B, Adham N, Schmauss C

Psychopharmacology **226**: 91-100, 2013

[Cariprazine \(RGH-188\), a D3-preferring dopamine D3/D2 receptor partial agonist antipsychotic candidate demonstrates anti-abuse potential in rats](#)


Román V, Gyertyán I, Sággy K, Kiss B, Szombathelyi Z

Psychopharmacology **226**: 285-293, 2013

[Attenuation of anhedonia by cariprazine in the chronic mild stress model of depression](#)

Papp M, Gruca P, Lason-Tyburkiewicz M, Adham N, Kiss B, Gyertyán I

Behav Pharmacol **25**: 567-574, 2014

[Cariprazine exerts antimanic properties and interferes with dopamine D2 receptor \$\beta\$ -arrestin interactions](#)  Open access


Gao Y, Peterson S, Masri B, Hougland MT, Adham N, Gyertyán I, Kiss B, Caron MG and El-Mallakh RS

Pharma Res Per **3**: e00073, 1-10, 2014

[Cariprazine delays ouabain-evoked epileptiform spikes and loss of activity in rat hippocampal slices](#)

El-Mallakh RS, Payne RS, Schurr A, Gao Y, Lei Z, Kiss B, Gyertyán I, Adham N

Psychiatry Res **229**: 370-373, 2015

[Effects of cariprazine, a novel antipsychotic, on cognitive deficit and negative symptoms in a rodent model of schizophrenia symptomatology](#)  Open access


Neill JC, Grayson B, Kiss B, Gyertyán I, Ferguson P, Adham N

Eur Neuropsychopharmacol **26**: 3-14, 2016

[The dopamine D3-preferring D2/D3 dopamine receptor partial agonist, cariprazine, reverses behavioral changes in a rat neuro-developmental model for schizophrenia](#)

Watson DJG, King MV, Gyertyán I, Kiss B, Adham N, Fone KC

Eur Neuropsychopharmacol **26**: 208-224, 2016


[Cariprazine exhibits anxiolytic and dopamine D3 receptor-dependent antidepressant effects in the chronic stress model](#)  Open access

Duric V, Banasr M, Franklin T, Lepack A, Adham N, Kiss B, Gyertyán I, Duman RS

Int J Neuropsychopharmacol **20**: 788-796, 2017

[The effects of cariprazine and aripiprazole on PCP-induced deficits on attention assessed in the 5-choice serial reaction time task](#)  Open access

Barnes S, Young J, Markou A, Adham N, Gyertyán I, Kiss B
Psychopharmacology **235**: 1403-1414, 2018

[The novel atypical antipsychotic cariprazine demonstrates dopamine D₂ receptor-dependent partial agonist actions on rat mesencephalic dopamine neuronal activity](#)  Open access

Delcourte S, Ashby CR, Rovera R, Kiss B, Adham N, Farkas B, Haddjeri N
CNS Neurosci. Ther. **24**: 1129-1139, 2018

Pharmacokinetic

[Sensitive LC-MS/MS methods for the quantification of RGH-188 and its active metabolites, desmethyl- and didesmethyl-RGH-188 in human plasma and urine](#)


Pásztor Mészáros G, Ágai-Csongor É, Kapás M
J Pharmaceut Biomed Anal **48**: 388-397, 2008

Clinical


Schizophrenia

[An evaluation of the safety and efficacy of cariprazine in patients with acute exacerbation of schizophrenia: A phase II, randomized clinical trial](#)  Open access

Durgam S, Starace A, Li D, Migliore R, Ruth A, Németh G, Laszlovszky I
Schizophr Res **152**: 450-457, 2014

[Cariprazine in acute exacerbation of schizophrenia: A fixed-dose, phase 3, randomized, double-blind, placebo- and active-controlled trial](#)  Open access

Durgam S, Cutler AJ, Lu K, Migliore R, Ruth A, Laszlovszky I, Németh G, Meltzer HY
J Clin Psychiatry **76**: e1574-e1582, 2015

[Efficacy and safety of cariprazine in acute exacerbation of schizophrenia: Results from an international, phase III clinical trial](#)  Open access

Kane JM, Zukin S, Wang Y, Lu K, Ruth A, Nagy K, Laszlovszky I, Durgam S
J Clin Psychopharmacol **35**: 367-373, 2015

[Cariprazine in the treatment of schizophrenia: A proof-of-concept trial](#)  Open access


Durgam S, Litman R, Papadakis K, Li D, Németh G, Laszlovszky I
Int Clin Psychopharmacol **31**: 61-68, 2016

[Long-term cariprazine treatment for the prevention of relapse in patients with schizophrenia: A randomized, double-blind, placebo-controlled trial](#)  Open access


Durgam S, Earley W, Li R, Li D, Lu K, Laszlovszky I, Fleischhacker WW, Nasrallah HA
Schizophr Res **176**: 264-271, 2016

[The effect of cariprazine on hostility associated with schizophrenia](#)  Open access

Citrome L, Durgam S, Lu K, Ferguson P, Laszlovszky I
J Clin Psychiatry **77**: 109-115, 2016

[Cariprazine as monotherapy for the treatment of predominant negative symptoms in patients with schizophrenia: A randomized, double-blind, active-comparator controlled trial](#)  [Open access at Richter website](#)


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Lancet **389**: 1103-1113, 2017

[Evaluation of the long-term safety and tolerability of cariprazine in patients with schizophrenia: results from a 1-year open-label study](#)  [Open access](#)

Cutler A, Durgam S, Wang Y, Migliore R, Lu K, Laszlovszky I, Németh G
CNS Spectrums **23**: 39-50, 2018

[Safety and tolerability of cariprazine in the long-term treatment of schizophrenia: Results from a 48-week, open-label extension study](#)  [Open access](#)

Durgam S, Greenberg WM, Li D, Lu K, Laszlovszky I, Németh G, Migliore R, Volk S
Psychopharmacology **234**: 199-209, 2017

[Safety and tolerability of cariprazine in patients with acute exacerbation of schizophrenia: a pooled analysis of four phase II/III randomized, double-blind, placebo-controlled studies](#)  [Open access](#)


Earley W, Durgam S, Lu K, Laszlovszky I, Debelle M, Kane JM
Int Clin Psychopharmacol **32**: 319-328, 2017

[The safety and tolerability of cariprazine in long-term treatment of schizophrenia: A post hoc pooled analysis](#)  [Open access](#)


Nasrallah H, Earley W, Cutler A, Wang Y, Lu K, Laszlovszky I, Németh G, Durgam S
BMC Psychiatry **17**: 305, 2017

[Negative Symptoms of Schizophrenia: Constructs, Burden, and Management](#)  [Open access](#)


Barabácssy A, Szatmári B, Laszlovszky I, Németh G
Psychotic Disorders: An Update; Edited by Federico Durbano, IntechOpen, pp. 43-62, 2018
ISBN 978-953-51-5976-6; <http://dx.doi.org/10.5772/intechopen.73300>

[Efficacy of cariprazine on negative symptoms in patients with acute schizophrenia: A post hoc analysis of pooled data](#)  [Open access](#)


Earley W, Guo H, Daniel D, Nasrallah H, Durgam S, Zhong Y, Patel M, Barabácssy A, Szatmári B, Németh G
Schizophr Res 2018, in press; <https://doi.org/10.1016/j.schres.2018.08.020>

[Long-term remission with cariprazine treatment in patients with schizophrenia: A post hoc analysis of a randomized, double-blind, placebo-controlled, relapse prevention trial](#)  [Open access](#)

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J Clin Psychiatry **80**: 18m12495, 2019


[Efficacy of cariprazine across symptom domains in patients with acute exacerbation of schizophrenia: Pooled analyses from 3 phase II/III studies](#)  [Open access](#)

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Eur Neuropsychopharmacol **29**: 127-136, 2019


[The efficacy of cariprazine in negative symptoms of schizophrenia: Post hoc analyses of PANSS individual items and PANSS-derived factors](#)  Open access

Fleischhacker W, Galderisi S, Laszlovszky I, Szatmári B, Barabácssy Á, Acsai K, Szalai E, Harsányi J, Earley W, Patel M, Németh G
Eur Psychiatry **58**: 1-9, 2019

Mania

[The efficacy and tolerability of cariprazine in acute mania associated with bipolar I disorder: a phase II trial](#)  Open access

Durgam S, Starace A, Li D, Migliore R, Ruth A, Németh G, Laszlovszky I
Bipolar Disord **17**: 63-75, 2015

[Cariprazine in the treatment of acute mania in bipolar I disorder: A double-blind, placebo controlled, phase III trial](#)  Open access


Sachs GS, Greenberg WM, Starace A, Lu K, Ruth A, Laszlovszky I, Németh G, Durgam S
J Affect Disord **174**: 296-302, 2015

[Efficacy and safety of low- and high-dose cariprazine in patients with acute and mixed mania associated with bipolar I disorder](#)  Open access


Calabrese JR, Keck PE, Starace A, Lu K, Ruth A, Laszlovszky I, Németh G, Durgam S
J Clin Psychiatry **76**: 284-292, 2015

[Effect of cariprazine across the symptoms of mania in bipolar I disorder: Analyses of pooled data from phase II/III trials](#)  Open access

Vieta E, Durgam S, Lu K, Ruth A, Debelle M, Zukin S
Eur Neuropsychopharm **25**: 1882-1891, 2015

[Tolerability of cariprazine in the treatment of acute bipolar I mania: A pooled post hoc analysis of 3 phase II/III studies](#)  Open access

Earley W, Durgam S, Lu K, Debelle M, Laszlovszky I, Vieta E, Yatham LN
J Affect Disord **215**: 205-212, 2017


[The safety and tolerability of cariprazine in patients with bipolar I disorder: A 16-week open-label study](#)  Open access

Ketter TA, Sachs GS, Durgam S, Lu K, Starace A, Laszlovszky I, Németh G
J Affect Disord **225**: 350-356, 2018

[Clinically relevant response and remission outcomes in cariprazine-treated patients with bipolar I disorder](#)  Open access

Earley W, Durgam S, Lu K, Ruth A, Németh G, Laszlovszky I, Yatham LN
J Affect Disord **226**: 239-244, 2018

Schizophrenia & Mania

[Global improvement with cariprazine in the treatment of bipolar I disorder and schizophrenia: a pooled post hoc analysis](#)  Open access


Durgam S, Earley W, Lu K, Németh G, Laszlovszky I, Volk S, Litman RE
Int J Clin Pract e13037, 2017

Bipolar Depression

[An 8-week randomized, double-blind, placebo-controlled evaluation of the safety and efficacy of cariprazine in patients with bipolar I depression](#)  Open access

Durgam S, Earley W, Lipschitz A, Guo H, Laszlovszky I, Németh G, Vieta E, Calabrese JR, Yatham LN
Am J Psychiatry **173**: 271-281, 2016

Major Depression add-on

[Efficacy and safety of adjunctive cariprazine in inadequate responders to antidepressants: A randomized, double-blind, placebo-controlled study in adult MDD patients](#)  Open access

Durgam S, Earley W, Guo H, Li D, Németh G, Laszlovszky I, Fava M, Montgomery SA
J Clin Psychiatry **77**: 371-378, 2016

[Efficacy of adjunctive low-dose cariprazine in major depressive disorder: A randomized, double-blind, placebo-controlled trial](#)  Open access

Fava M, Durgam S, Earley W, Lu K, Hayes R, Laszlovszky I, Németh G
Int Clin Psychopharmacol **33**: 312-321, 2018

[Cariprazine augmentation to antidepressant therapy in major depressive disorder: Results of a randomized, double-blind, placebo-controlled trial](#)


Earley W, Guo H, Németh G, Harsányi J, Thase M
Psychopharmacology Bulletin **48**: 62-80, 2018

[Long-term safety and tolerability of cariprazine as adjunctive therapy in major depressive disorder](#)


 Open access

Vieta E, Earley WR, Burgess MV, Durgam S, Chen C, Zhong Y, Barabácssy Á, Németh G
Int Clin Psychopharmacol, epub, 2018

Human Pharmacokinetic

[Preferential binding to dopamine D3 over D2 receptors by cariprazine in patients with schizophrenia using PET with the D3/D2 receptor ligand \[11C\]-\(+\)-PHNO](#)  Open access

Girgis RR, Slifstein M, D'Souza D, Lee Y, Periclou A, Ghahramani P, Laszlovszky I, Durgam S, Adham N, Nabulsi N, Huang Y, Carson RE, Kiss B, Kapás M, Abi-Dargham A, Rakhit A
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Drug Design Develop Ther **10**: 327-338, 2016

Health Technology Assessment (HTA)

[Quality-adjusted life year difference in patients with predominant negative symptoms of schizophrenia treated with cariprazine and risperidone](#)  Open access

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J Comp Eff Res **6**: 639-648, 2017

[Cost-utility analysis of cariprazine compared to risperidone among patients with negative symptoms of schizophrenia](#)

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Health Policy Tech published on line, 2019

General

[Cariprazine – a milestone of the Hungarian drug research and unique possibility for the treatment of predominant negative symptoms of patients with schizophrenia.](#)

[A new chemical entity, developed by Gedeon Richter Plc. in Hungary received market authorization approval from FDA in schizophrenia and bipolar mania indications \(Published in Hungarian with English abstract\)](#)

Laszlovszky I, Németh G

Gyógyszerészet **59**: 643-646, 2015