Structurally Rigid Dopamine D3 Receptor Selective Ligands as Cocaine and Methamphetamine Abuse Therapeutics

Published date: Feb. 1, 2012

Technology description

Summary

The dopamine D3 receptor subtype has been implicated in a number of central nervous system (CNS) disorders including but not limited to drug abuse, schizophrenia and Parkinson's disease. Since D3 receptor ligands show efficacy in animal models of cocaine self-administration and Parkinson's disease, there has been a significant effort to design and develop novel dopamine D3 ligands. However most currently known compounds are highly lipophilic, leading to poor bioavailablility and toxicity, or are not highly D3 selective.

The present invention provides a family of structurally rigid, potent and selective D3 receptor antagonists and partial agonists with lowered lipophilicity. Bioavailable compounds that bind with high affinity and selectivity to D3 receptors can not only provide important tools with which to study the structure and function of this receptor subtype, but may also have therapeutic uses in psychiatric, behavioral and neurologic disorders.

Institution

NIH - National Institutes of Health

联系我们

叶先生

电 话：021-65679356

手 机：13414935137

邮 箱：yeyingsheng@zf-ym.com