

[Open Peer Review on Qeios](#)

Varenicline

National Cancer Institute

Source

National Cancer Institute. *Varenicline*. NCI Thesaurus. Code C73609.

A partial agonist of the nicotinic acetylcholine receptor (nAChR) subtype alpha4beta2. Nicotine stimulation of central alpha4beta2 nAChRs located at presynaptic terminals in the nucleus accumbens causes the release of the neurotransmitter dopamine, which may be associated with the experience of pleasure; nicotine addiction constitutes a physiologic dependence related to this dopaminergic reward system. As an AChR partial agonist, varenicline attenuates the craving and withdrawal symptoms that occur with abstinence from nicotine but is not habit-forming itself.