# Data Sheet

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| **Product Name** | : | RJR-2403 |
| **Cat. No.** | : | PC-43405 |
| **CAS No.** | : | 15585-43-0 |
| **Molecular Formula** | : | $C_{10}H_{14}N_2$ |
| **Molecular Weight** | : | 162.2316 |
| **Target** | : | nAChR |
| **Solubility** | : | 10 mM in DMSO |
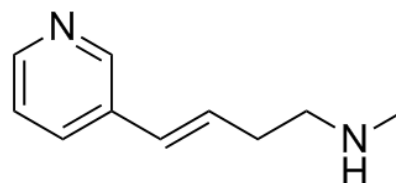
## Biological Activity

RJR-2403 (Rivanicline, Metanicotine) is a potent, selective neuronal nicotinic ACh (nAChR) agonist with high affinity to rat brain cortex (Ki=26 nM), does not significantly activate muscle type nAChRs or muscarinic receptors; RJR-2403 is comparable to nicotine in activating rat thalamic synaptosomes with EC50 of 732 nM; significantly improves passive avoidance retention after scopolamine-induced amnesia and enhanced both working and reference memory in rats, also demonstrates greatly reduced cardiovascular effects; exerts its antinociceptive effect via nicotinic rather than either opioid or muscarinic mechanisms.

## References

Bencherif M, et al. J Pharmacol Exp Ther. 1996 Dec;279(3):1413-21.

Lippiello PM, et al. J Pharmacol Exp Ther. 1996 Dec;279(3):1422-9.

Damaj MI, et al. J Pharmacol Exp Ther. 1999 Oct;291(1):390-8.

Ueno K, et al. J Pharmacol Exp Ther. 2002 Jul;302(1):95-100.