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Potent anticholinesterasic and neuroprotective pyranotacrines as inhibitors of beta-amyloid aggregation, oxidative stress and tau-phosphorylation for Alzheimer's disease

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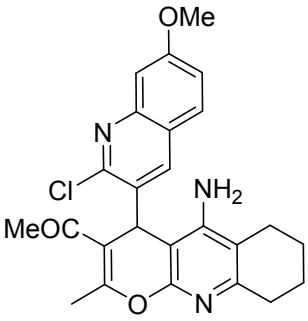

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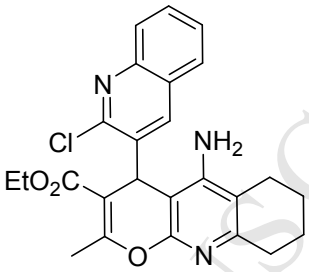

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PyranoTacrines

9 {1-(5-amino-4-(2-chloro-7-methoxyquinolin-3-yl)-2-methyl-6,7,8,9-tetrahydro-4*H*-pyrano[2,3-*b*]quinolin-3-yl) ethanone} and

4 (ethyl 5-amino-4-(2-chloroquinolin-3-yl)-2-methyl-6,7,8,9-tetrahydro-4*H*-pyrano[2,3-*b*] quinoline-3-carboxylate)
are permebale, potent, mixed-type, selective AChEI, non-neurotoxic compounds showing remarkable neuroprotective activity against cell death induced by oxidative stress, Aβ-aggregation, and tau-phosphorylation, excellent calculated drug-like characteristics, fulfilling thus the requirements to be considered a very promising tacrines for AD.