Nefiracetam is pyrrolidone derivative that acts as an agonist at NMDA receptors, metabotropic glutamate receptors (mGluR5), and N-type and L-type voltage-gated Ca²⁺ channels. Nefiracetam also potentiates acetylcholine (ACh) currents via activity at α4β2 nicotinic acetylcholine receptors (nAChRs). Nefiracetam exhibits antiepileptic/anticonvulsant, neuroprotective, and cognition enhancing (nootropic) activities. In vivo, nefiracetam decreases seizure frequency and duration and also protects against neuronal death in animal models of post-ischemic seizure. In other animal models, this compound restored LTP, improved spatial memory, and improved object recognition in several behavioral assays, likely through glutamate-dependent modulation of PKC and CaMKII signaling.

References


Caution: This product is intended for laboratory and research use only. It is not for human or drug use.