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Quinolinic Acid

National Cancer Institute

Source

National Cancer Institute. *Quinolinic Acid*. NCI Thesaurus. Code C113236.

An intermediate product of the kynurenine pathway, which is responsible for the conversion of the amino acid tryptophan into nicotinamide adenine dinucleotide, with potential neurotoxic activity. If produced in excess, quinolinic acid can cross the blood-brain barrier (BBB) and function as an N-methyl-D-aspartate (NMDA) receptor agonist, which may lead to both neuronal damage and neurodegenerative brain disease. The NMDA receptor, a heterotetrameric, ligand-gated and voltage-dependent glutamate receptor, is critical for synaptic plasticity, learning and memory.