Aniracetam

Product Information

Product Number A 9950
Store at Room Temperature

Product Description
Molecular Formula: C₁₂H₁₃NO₃
Molecular Weight: 219.2
CAS Number: 72432-10-1
Melting Point: 121-122 °C
Synonyms: 1-(4-methoxybenzoyl)-2-pyrrolidinone; 1-p-anisoyl-2-pyrrolidinone

Aniracetam is a compound with cognition enhancer properties that is related to piracetam. It is used in neuroscience studies and in research related to dementia and Alzheimer's disease. A review of the applicability of aniracetam to probing cerebral dysfunctional disorders has been published.²

Aniracetam potentiates AMPA receptor mediated ion conductance, as demonstrated in studies on Xenopus oocytes and human embryonic kidney 293 cells, by slowing or blocking desensitization.³ An investigation of rat hippocampal slices has shown that aniracetam prevents kynurenic acid antagonism of NMDA-evoked [³H]noradrenaline release.⁴ The use of aniracetam to probe responses at kainate-prefering receptors in dorsal root ganglia neurons and at amino 3-hydroxy-5-methyl-4-isoxazolepropionic acid-prefering receptors in hippocampal neurons has been described.⁵ Aniracetam has been used to enhance the cobalt loading of Ca²⁺-permeable AMPA receptors in cultured embryonic rat motoneurones.⁶

A protocol for the HPLC analysis of aniracetam in plasma has been published.⁷

Preparation Instructions
This product is soluble in chloroform (50 mg/ml), yielding a clear, colorless solution. It is also soluble in ethanol. It is insoluble in water.

References
1. The Merck Index, 12th ed., Entry# 700.

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

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