

PRODUCT INFORMATION



Radiprodil

Item No. 29712

CAS Registry No.: 496054-87-6
Formal Name: N-(2,3-dihydro-2-oxo-6-benzoxazolyl)-4-[(4-fluorophenyl)methyl]- α -oxo-1-piperidineacetamide

MF: C₂₁H₂₀FN₃O₄

FW: 397.4

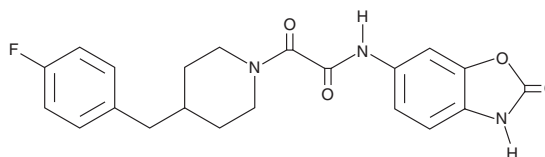
Purity: \geq 98%

UV/Vis.: λ_{\max} : 260, 290 nm

Supplied as: A solid

Storage: -20°C

Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Radiprodil is supplied as a solid. A stock solution may be made by dissolving the radiprodil in the solvent of choice, which should be purged with an inert gas. Radiprodil is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of radiprodil in these solvents is approximately 10 and 2 mg/ml, respectively.

Radiprodil is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, radiprodil should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Radiprodil has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Radiprodil is an antagonist of NR2B subunit-containing NMDA receptors ($IC_{50} = 8$ nM).¹ It is selective for NR2B subunit-containing NMDA receptors over NR1 and NR2A subunit-containing NMDA receptors at 15 μ M. Radiprodil (10 nM) reduces amyloid- β (1-42) (A β 42) and A β 40-induced decreases in dendritic spine density in mouse hippocampal CA1 pyramidal neurons.² Radiprodil (2 mg/kg) restores novel object-stimulated locomotion in a marmoset model of MPTP-induced Parkinson's disease.³

References

1. Barta-Szalai, G., Borza, I., Bozó, E., *et al.* Oxamides as novel NR2B selective NMDA receptor antagonists. *Bioorg. Med. Chem. Lett.* **14(15)**, 3953-3956 (2004).
2. Rammes, G., Seeser, F., Mattusch, K., *et al.* The NMDA receptor antagonist radiprodil reverses the synaptotoxic effects of different amyloid-beta (Ab) species on long-term potentiation (LTP). *Neuropharmacology* **140(10)**, 184-192 (2018).
3. Michel, A., Nicolas, J.M., Rose, S., *et al.* Antiparkinsonian effects of the "Radiprodil and Tozadenant" combination in MPTP-treated marmosets. *PLoS One* **12(8)**, e0182887 (2017).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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