

Product Datasheet

BU 224 hydrochloride

Catalog No. **BP-02397A** · CAS **205437-64-5** · Form **salt · hydrochloride** · Physical state **solid** · Color **Brown to gray** · Version **1.0** · Revision **2026-09-10**

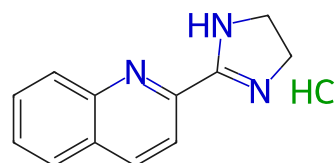
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Target Imidazoline Receptor; ApoptosisTNF Receptor	Research area Neurological Disease; Inflammation/Immunology
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Molecular formula **C₁₂H₁₂ClN₃**

Molecular weight **233.6970**

STRUCTURE



DESCRIPTION

BU224 hydrochloride is a selective and high affinity imidazoline I2 receptor ligand, with a K_i of 2.1 nM. BU224 hydrochloride is sometimes used as an I2 receptor antagonist. BU224 hydrochloride exerts neuroprotective effects, with anti-inflammatory and anti-apoptotic properties. BU224 hydrochloride improves memory in 5XFAD mice, enlarging dendritic spines and reducing A β -induced changes in NMDARs. BU224 hydrochloride can be used for Alzheimer's disease research[1][2][3].

BIOLOGICAL ACTIVITY

In Vivo

BU224 hydrochloride (5 mg/kg, IP, twice a day for 10 days) improves behavioural performance and memory function in 5XFAD mice.

BU224 hydrochloride (5 mg/kg, IP, twice a day for 10 days) reduces levels of the microglial marker Iba1 and pro-inflammatory cytokines IL-1 β and TNF- α and increased the expression of astrocytic marker GFAP in 5XFAD mice.

BU224 hydrochloride (10 mg/kg, IP, once) reduces immobility of rats in the FST (forced swim test), indicative of antidepressant-like activity.

SOLUBILITY

soluble in DMSO

REFERENCES

[1]. Mirzaei N, et al. Imidazoline ligand BU224 reverses cognitive deficits, reduces microgliosis and enhances synaptic connectivity in a mouse model of Alzheimer's disease. Br J Pharmacol. 2021 Feb;178(3):654-671.

[2]. Finn DP, et al. Behavioral, neuroendocrine and neurochemical effects of the imidazoline I2 receptor selective ligand BU224 in naive rats and rats exposed to the stress of the forced swim test. *Psychopharmacology (Berl)*. 2003 May;167(2):195-202.

[3]. Qiu Y, et al. Discriminative stimulus effects of the imidazoline I2 receptor ligands BU224 and phenyzoline in rats. *Eur J Pharmacol*. 2015 Feb 15;749:133-41.

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