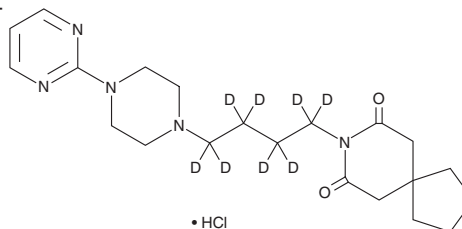


PRODUCT INFORMATION



Buspirone-d₈ (hydrochloride) Item No. 40435

CAS Registry No.: 1216761-39-5
Formal Name: 8-[4-[4-(2-pyrimidinyl)-1-piperazinyl]butyl-1,1,2,2,3,3,4,4-d₈]-8-azaspiro[4.5]decane-7,9-dione, monohydrochloride
Synonym: MJ9022-1-d₈
MF: C₂₁H₂₃D₈N₅O₂ • HCl
FW: 430.0
Chemical Purity: ≥98% (Buspirone)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₈); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Buspirone-d₈ (hydrochloride) is intended for use as an internal standard for the quantification of buspirone by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Buspirone-d₈ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the buspirone-d₈ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Buspirone-d₈ (hydrochloride) is soluble in methanol.

Description

Buspirone is a partial agonist of the serotonin (5-HT) receptor subtype 5-HT_{1A}.¹ It binds to the 5-HT_{1A} receptor (IC₅₀ = 5.6 nM) and inhibits forskolin-induced adenylate cyclase activity in primary CA1 hippocampal pyramidal cells. Buspirone inhibits conditioned avoidance responding in rats, as well as inhibits foot shock-induced fighting in mice.² Formulations containing buspirone have been used in the treatment of generalized anxiety disorder.

References

1. Taylor, D.P. and Moon, S.L. Buspirone and related compounds as alternative anxiolytics. *Neuropeptides* **19**(Suppl.), 15-19 (1991).
2. Eison, A.S. and Temple, D.L., Jr. Buspirone: Review of its pharmacology and current perspectives on its mechanism of action. *Am. J. Med.* **80**(3B), 1-9 (1986).

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.

WARRANTY AND LIMITATION OF REMEDY
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