

PRODUCT INFORMATION



Bromocriptine-¹³C-d₃

Item No. 26669

Formal Name: (6aR,9R)-5-bromo-N-((2R,5S,10aS,10bS)-10b-hydroxy-5-isobutyl-2-isopropyl-3,6-dioxooctahydro-8H-oxazolo[3,2-a]pyrrolo[2,1-c]pyrazin-2-yl)-7-(methyl-¹³C-d₃)-4,6,6a,7,8,9-hexahydroindolo[4,3-fg]quinoline-9-carboxamide

Synonym:

MF: C₃₁[¹³C]H₃₇D₃BrN₅O₅

FW: 658.6

Chemical Purity: ≥98% (Bromocriptine)

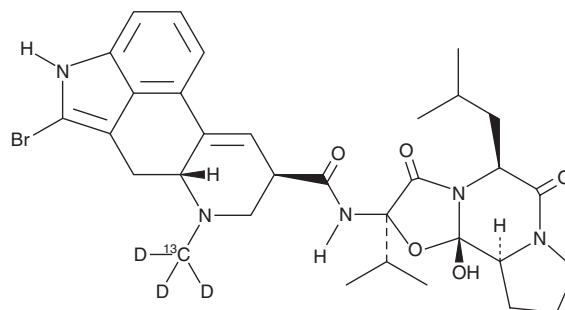
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₃); ≤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

Bromocriptine-¹³C-d₃ is intended for use as an internal standard for the quantification of bromocriptine (Item No. 14598) 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).

Bromocriptine-¹³C-d₃ is supplied as a solid. A stock solution may be made by dissolving the bromocriptine-¹³C-d₃ in the solvent of choice, which should be purged with an inert gas. Bromocriptine-¹³C-d₃ is soluble in the organic solvent chloroform.

Description

Bromocriptine is a dopamine receptor agonist (K_is = 1,659, 12.2, 12.2, 59.7, and 1,691 nM for dopamine D₁, D₂, D₃, D₄, and D₅ receptors, respectively).¹ It also binds to the serotonin (5-HT) receptor subtypes 5-HT_{1A} and 5-HT_{1D} (K_is = 12.9 and 10.7 nM, respectively), as well as α₁-adrenergic receptors (K_is = 1.12-4.17 nM).^{1,2} Bromocriptine (5 mg/kg) restores locomotor activity, without inducing dyskinesia, in a macaque model of Parkinson's disease induced by MPTP.³ Formulations containing bromocriptine have been used in the treatment of Parkinson's disease, hyperprolactinemia-associated dysfunctions, and acromegaly.

References

1. Kvernmo, T., Härtter, S., and Bürger, E. A review of the receptor-binding and pharmacokinetic properties of dopamine agonists. *Clin. Ther.* **28(8)**, 1065-1078 (2006).
2. Millan, M.J., Maiorini, L., Cussac, D., et al. Differential actions of antiparkinson agents at multiple classes of monoaminergic receptor. I. A multivariate analysis of the binding profiles of 14 drugs at 21 native and cloned human receptor subtypes. *J. Pharmacol. Exp. Ther.* **303(2)**, 791-804 (2002).
3. Rouillard, C., Bédard, P.J., and De Paolo, T. Effects of chronic treatment of MPTP monkeys with bromocriptine alone or in combination with SKF 38393. *Eur. J. Pharmacol.* **185(2-3)**, 209-215 (1990).

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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