

Product Data Sheet

Product Name: Bromocriptine-13C-d3

Cat. No.: GC46954

Chemical Properties

Cas. No. N/A

SMILES O[C@@]([C@@](CCC1)([H])N1C2=O)(O[C@@]3(C(C)C)NC([C@@H](CN([13C])([2H])([2H])[2H])[C@]4([H])C5)C=C4C6=C7C5=C(Br)NC7=CC=C6)=O)N([C@H]2CC(C)C)C3=O

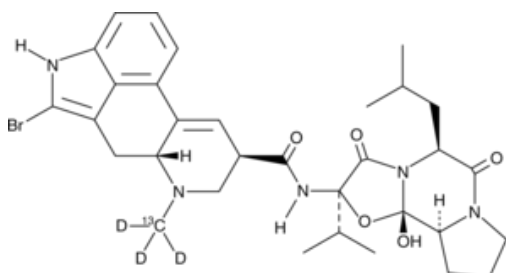
Formula C31[13C]H37D3BrN5O5 M.Wt 658.6

Solubility Chloroform: soluble Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Bromocriptine-¹³C-d₃ is intended for use as an internal standard for the quantification of bromocriptine by GC- or LC-MS. Bromocriptine is a dopamine receptor agonist (K_i s = 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_i s = 12.9 and 10.7 nM, respectively), as well as α_1 -adrenergic receptors (K_i s = 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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1.Kvernmo, T., HÄrtter, S., and BÜrger, E.A review of the receptor-binding and pharmacokinetic properties of dopamine agonistsClin. Ther.28(8)1065-1078(2006) 2.Millan, M.J., Maiofiss, 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 subtypesJ. 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 38393Eur. J. Pharmacol.185(2-3)209-215(1990)

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