

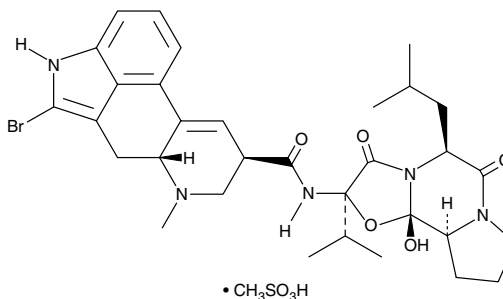
Product Information



Bromocriptine (mesylate)

Item No. 14598

CAS Registry No.: 22260-51-1
Formal Name: (5 α)-2-bromo-12'-hydroxy-2'-(1-methylethyl)-5'-(2-methylpropyl)-ergotaman-3',6',18-trione, monomethanesulfonate
Synonyms: CB-154, Cycloset, Parlodel
MF: C₃₂H₄₀BrN₅O₅ • CH₃SO₃H
FW: 750.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max} : 304 nm



Laboratory Procedures

For long term storage, we suggest that bromocriptine (mesylate) be stored as supplied at -20°C. It should be stable for at least two years.

Bromocriptine (mesylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the bromocriptine (mesylate) in the solvent of choice. Bromocriptine (mesylate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of bromocriptine (mesylate) in ethanol is approximately 5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Bromocriptine (mesylate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, bromocriptine (mesylate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Bromocriptine (mesylate) has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Bromocriptine is a potent dopamine receptor agonist that binds the D₂ receptor with highest affinity (K_i = 2.5 nM).^{1,2} As a result, it has found applications in combination therapy for Parkinsonism.^{1,2} Bromocriptine also avidly binds the serotonin receptors 5-HT_{1A} and 5-HT_{1D} (K_i = 12.9 and 10.7 nM, respectively), as well as α and β adrenoreceptors.^{1,2} It also inhibits neuronal nitric oxide synthase (IC_{50} = 10 μ M).³

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., 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 subtypes. *J. Pharmacol. Exp. Ther.* **303**(2), 791-804 (2002).
3. Renodon, A., Boucher, J.-L., Sari, M.-A., *et al.* Bromocriptine is a strong inhibitor of brain nitric oxide synthase: Possible consequences for the origin of its therapeutic effects. *FEBS Lett.* **406**, 33-36 (1997).

Related Products

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