

**Product Name:** Bromocriptine mesylate

**Catalog No.:** 0427

**Batch No.:** 10

CAS Number: 22260-51-1

EC Number: 244-881-1

IUPAC Name: (5'a)-2-Bromo-12'-hydroxy-2'-(1-methylethyl)-5'-(2-methylpropyl)ergotaman-3',6',18-trione mesylate

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>32</sub>H<sub>40</sub>BrN<sub>5</sub>O<sub>5</sub>.CH<sub>3</sub>SO<sub>3</sub>H.¼H<sub>2</sub>O

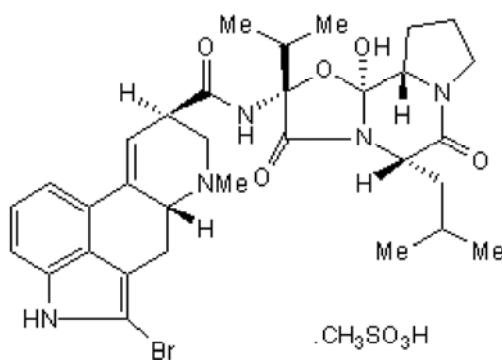
**Batch Molecular Weight:** 755.2

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.7% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Optical Rotation:** [α]<sub>D</sub> = +92.5 (Concentration = 1, Solvent = Methanol)

**Microanalysis:** Carbon Hydrogen Nitrogen

	Carbon	Hydrogen	Nitrogen
Theoretical	52.48	5.94	9.27
Found	52.34	5.89	9.11

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IUPAC Name: (5'a)-2-Bromo-12'-hydroxy-2'-(1-methylethyl)-5'-(2-methylpropyl)ergotaman-3',6',18-trione mesylate

**Description:**

Bromocriptine mesylate is a selective D<sub>3</sub> and D<sub>2</sub> dopamine receptor agonist (K<sub>i</sub> values are ~ 5 nM and ~ 8 nM respectively). Activates both isoforms of D<sub>2</sub> receptor (EC<sub>50</sub> values are 0.10-0.12 nM and 4.4 nM for D<sub>2L</sub> and D<sub>2S</sub> receptors, respectively). Bromocriptine shows anti-Aβ effects that are increased in combination with Cromolyn (Cat. No. 6424) and Topiramate (Cat. No. 3620). Also lowers glucose and increases insulin sensitivity in vivo.

**Physical and Chemical Properties:**

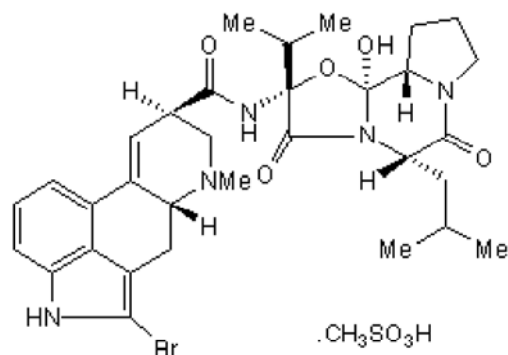
Batch Molecular Formula: C<sub>32</sub>H<sub>40</sub>BrN<sub>5</sub>O<sub>5</sub>.CH<sub>3</sub>SO<sub>3</sub>H.½H<sub>2</sub>O

Batch Molecular Weight: 755.2

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Tavares et al** (2021) Dopamine D2 receptor agonist, bromocriptine, remodels adipose tissue dopaminergic signalling and upregulates catabolic pathways, improving metabolic profile in type 2 diabetes. *Mol.Metab.* **51** 101241. PMID: 33933677.

**Kondo et al** (2017) iPSC-based compound screening and in vitro trials identify a synergistic anti-amyloid β combination for Alzheimer's disease. *Cell Rep.* **21** 2304. PMID: 29166618.

**Seeman and Van Tol** (1994) DA receptor pharmacology. *TiPS* **15** 264. PMID: 7940991.

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