

**Product Name:** Bretazenil

**Catalog No.:** 3568

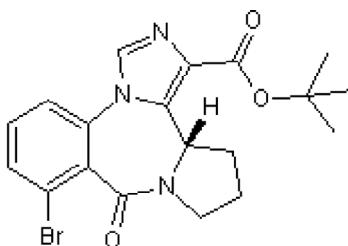
**Batch No.:** 3

CAS Number: 84379-13-5

IUPAC Name: (13a*S*)-8-Bromo-11,12,13,13a-tetrahydro-9-oxo-9*H*-imidazo[1,5-*a*]pyrrolo[2,1-*c*][1,4]benzodiazepine-1-carboxylic acid 1,1-dimethylethyl ester

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>19</sub> H <sub>20</sub> BrN <sub>3</sub> O <sub>3</sub>
<b>Batch Molecular Weight:</b>	418.28
<b>Physical Appearance:</b>	White solid
<b>Solubility:</b>	DMSO to 100 mM ethanol to 100 mM
<b>Storage:</b>	Desiccate at +4°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 99.6% purity
<b>Chiral HPLC:</b>	Shows 100% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure
<b>Microanalysis:</b>	

	Carbon	Hydrogen	Nitrogen
Theoretical	54.56	4.82	10.05
Found	54.33	4.9	9.84

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Bretazenil is a partial agonist at the GABA<sub>A</sub> benzodiazepine site (EC<sub>50</sub> = 10 nM at α1β1γ2 receptors). Displays anticonvulsive activity in vivo.

**Physical and Chemical Properties:**

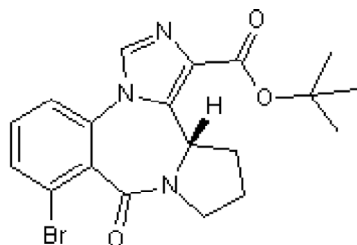
Batch Molecular Formula: C<sub>19</sub>H<sub>20</sub>BrN<sub>3</sub>O<sub>3</sub>

Batch Molecular Weight: 418.28

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol 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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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:**

**Munro *et al*** (2008) Comparison of the novel subtype-selective GABA<sub>A</sub> receptor-positive allosteric modulator NS11394 [3'-[5-(1-hydroxy-1-methyl-ethyl)-benzimidazol-1-yl]-biphenyl-2-carbonitrile] with D.pam, zolpidem, bretazenil, and gaboxadol in rat models of i J.Pharmacol.Exp.Ther. **327** 969. PMID: 18791060.

**Rundfeldt *et al*** (1995) Anticonvulsant tolerance and withdrawal characteristics of benzodiazepine receptor ligands in different seizure models in mice. Comparison of D.pam, bretazenil and abecarnil. J.Pharmacol.Exp.Ther. **275** 693. PMID: 7473156.

**Puia *et al*** (1992) Molecular mechanisms of the partial allosteric modulatory effects of bretazenil at γ-aminobutyric acid type A receptor. Proc.Natl.Acad.Sci. USA Neurobiology **89** 3620.

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