

## Certificate of Analysis

**Product Name:** BW 373U86

**Catalog No.:** 1663

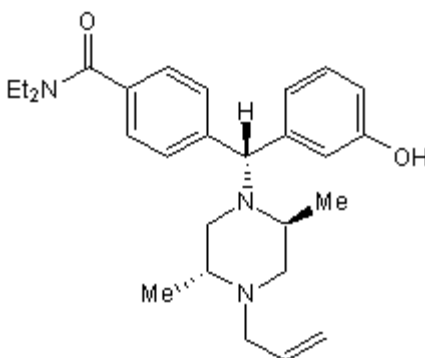
**Batch No.:** 2

CAS Number: 155836-50-3

IUPAC Name: 4-[( $\alpha R^*$ )- $\alpha$ -((2*S*\*,5*R*\*)-4-Allyl-2,5-dimethyl-1-piperazinyl)-3-hydroxybenzyl]-*N,N*-diethylbenzamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>27</sub>H<sub>37</sub>N<sub>3</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 435.61  
**Physical Appearance:** Beige solid  
**Solubility:** 1eq. HCl to 100 mM  
ethanol to 100 mM  
DMSO to 25 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.43 (DCM:Methanol:Et<sub>3</sub>N (9:0.8:0.2))  
**HPLC:** Shows 99.4% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	74.45	8.56	9.65
Found	74.31	8.53	9.44

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

**Product Name:** BW 373U86

**Catalog No.:** 1663

**Batch No.:** 2

CAS Number: 155836-50-3

IUPAC Name: 4-[( $\alpha R^*$ )- $\alpha$ -((2*S*\*,5*R*\*)-4-Allyl-2,5-dimethyl-1-piperazinyl)-3-hydroxybenzyl]-*N,N*-diethylbenzamide

**Description:**

Potent, selective non-peptide  $\delta$ -opioid receptor agonist.  $K_i$  values are 1.8, 15 and 34 nM for  $\delta$ ,  $\mu$  and  $\kappa$  receptors respectively. Centrally active following systemic administration in vivo.

**Physical and Chemical Properties:**

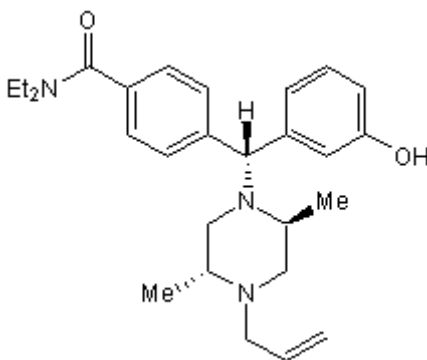
Batch Molecular Formula: C<sub>27</sub>H<sub>37</sub>N<sub>3</sub>O<sub>2</sub>

Batch Molecular Weight: 435.61

Physical Appearance: Beige solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

1eq. HCl to 100 mM  
ethanol to 100 mM  
DMSO to 25 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:**

**Chang et al** (1993) A novel, potent and selective nonpeptidic *delta* opioid receptor agonist BW373U86. J.Pharmacol.Exp.Ther. **267** 852. PMID: 8246159.

**Dykstra et al** (1993) A novel *delta* opioid agonist, BW373U86, in squirrel monkeys responding under a schedule of shock titration. J.Pharmacol.Exp.Ther. **267** 875. PMID: 8246162.

**Broom et al** (2002) Comparison of receptor mechanisms and efficacy requirements for  $\delta$ -agonist-induced convulsive activity and antinociception in mice. J.Pharmacol.Exp.Ther. **303** 723. PMID: 12388657.

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

**bio-techne.com**  
info@bio-techne.com  
techsupport@bio-techne.com

**North America**  
Tel: (800) 343 7475

**China**  
info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**  
Tel: +44 (0)1235 529449

**Rest of World**  
www.tocris.com/distributors  
Tel: +1 612 379 2956