

## Certificate of Analysis

**Product Name:** LP 12 hydrochloride

**Catalog No.:** 2925

**Batch No.:** 1

CAS Number: 1185136-22-4

IUPAC Name: 4-(2-Diphenyl)-N-(1,2,3,4-tetrahydronaphthalen-1-yl)-1-piperazinehexanamide hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{32}H_{39}N_3O \cdot HCl \cdot \frac{1}{4}H_2O$

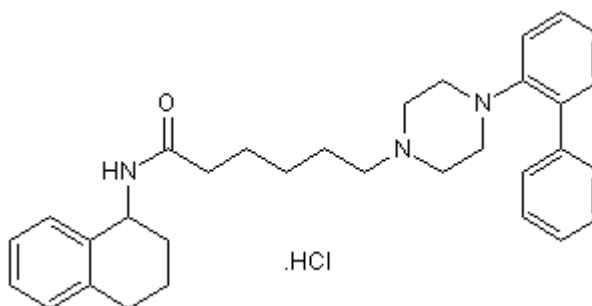
**Batch Molecular Weight:** 522.63

**Physical Appearance:** White solid

**Solubility:** DMSO to 75 mM  
ethanol to 75 mM

**Storage:** Desiccate 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

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	73.54	7.81	8.04
Found	73.34	7.75	8.01

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**Description:**

5-HT<sub>7</sub> receptor agonist displaying selectivity over D<sub>2</sub>, 5-HT<sub>1A</sub> and 5-HT<sub>2A</sub> receptors (K<sub>i</sub> values are 0.22, 7.3, 52.7 and 326 nM respectively). Induces relaxation of substance P-induced contractions in guinea pig ileum (EC<sub>50</sub> = 1.77 μM).

**Physical and Chemical Properties:**

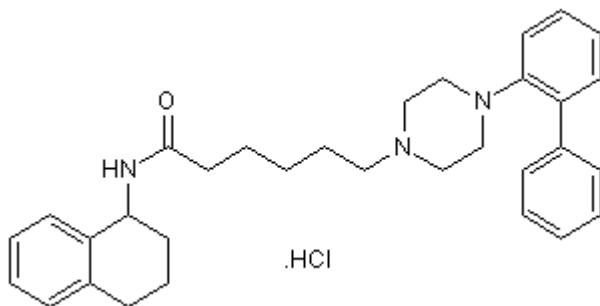
Batch Molecular Formula: C<sub>32</sub>H<sub>39</sub>N<sub>3</sub>O.HCl.¼H<sub>2</sub>O

Batch Molecular Weight: 522.63

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

DMSO to 75 mM  
ethanol to 75 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:**

**Leopoldo et al** (2007) Structure-activity relationship study on N-(1,2,3,4-tetrahydronaphthalen-1-yl)-4-aryl-1-piperazinehexanamides, a class of 5-HT<sub>7</sub> receptor agents. J.Med.Chem. **50** 4214. PMID: 17649988.

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