

**Product Name:** Philanthotoxin 74

**Catalog No.:** 2770

**Batch No.:** 2

CAS Number: 1227301-51-0

IUPAC Name: (S)-N-[7-[(4-Aminobutyl)amino]heptyl]-4-hydroxy- $\alpha$ -[(1-oxobutyl)amino]benzenepropanamide dihydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>24</sub>H<sub>42</sub>N<sub>4</sub>O<sub>3</sub>·2HCl· $\frac{1}{4}$ H<sub>2</sub>O

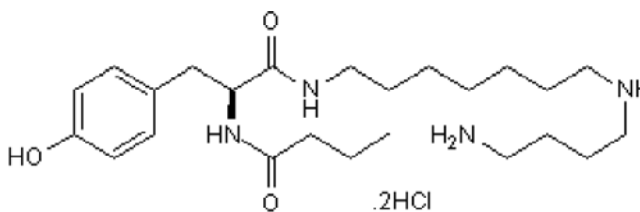
**Batch Molecular Weight:** 512.04

**Physical Appearance:** White solid

**Solubility:** water to 100 mM  
DMSO to 100 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 98.3% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	56.3	8.76	10.94
Found	55.91	8.86	10.94

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**Description:**

AMPA receptor antagonist. Non-selective homomeric GluA3 and GluA1 receptor antagonist (IC<sub>50</sub> values are 263 and 296 nM respectively). Inhibits homomeric GluA3 and GluA1 with a 100-fold greater potency than heteromeric GluA1/2 and GluA2/3 receptors.

**Physical and Chemical Properties:**

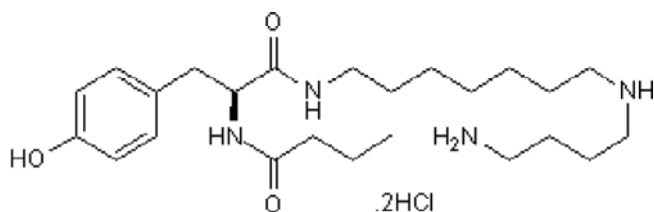
Batch Molecular Formula: C<sub>24</sub>H<sub>42</sub>N<sub>4</sub>O<sub>3</sub>·2HCl·¼H<sub>2</sub>O

Batch Molecular Weight: 512.04

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 100 mM

DMSO to 100 mM

When purchased as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**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:**

**Poulsen *et al*** (2013) Evaluation of PhTX-74 as subtype-selective inhibitor of GluA2-containing AMPA receptors. *Mol.Pharmacol.* **85** 261. PMID: 24220009.

**Nilsen and England** (2007) A subtype-selective, use-dependent inhibitor of native AMPA receptors. *J.Am.Chem.Soc.* **129** 4902. PMID: 17391037.

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