

Product Name: FFN 102 mesylate

Catalog No.: 5200

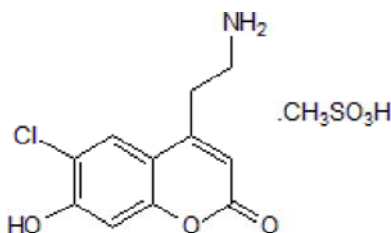
Batch No.: 1

CAS Number: 1883548-92-2

IUPAC Name: 4-(2-Aminoethyl)-6-chloro-7-hydroxy-2H-1-benzopyran-2-one methanesulfonate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₁N₂ClO₃.CH₃SO₃H.H₂O
Batch Molecular Weight: 353.78
Physical Appearance: Pale pink solid
Solubility: water to 20 mM with gentle warming
DMSO to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	40.74	4.56	3.96
Found	40.73	4.54	3.95

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

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Description:

pH responsive fluorescent false neurotransmitter (FFN). Selective dopamine transporter (DAT) and VMAT2 substrate. Exhibits no significant binding to a panel of 38 CNS receptors, including dopamine and serotonin receptors. Inhibits dopamine uptake. Excitation maxima are 340 nm at pH 5 and 370 nm at pH 7.5. Emission maximum is 435 nm at both pH 5 and 7.5.

Physical and Chemical Properties:

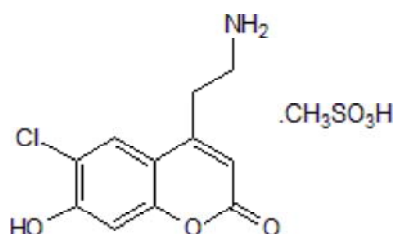
Batch Molecular Formula: C₁₁H₁₁N₂ClO₃.CH₃SO₃H.H₂O

Batch Molecular Weight: 353.78

Physical Appearance: Pale pink solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 20 mM with gentle warming

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.

Licensing Information:

Sold with the permission of Columbia University.

References:

Rodriguez et al (2013) Fluorescent DA tracer resolves individual DArgic synapses and their activity in the brain. *Proc.Natl.Acad.Sci.U.S.A.* **110** 870. PMID: 23277566.

Sames et al (2013) Visualizing neurotransmitter secretion at individual synapses. *ACS Chem.Neurosci.* **4** 648. PMID: 23862751.

Lee et al (2010) Development of pH-responsive fluorescent false neurotransmitters. *J.Am.Chem.Soc.* **132** 8828. PMID: 20540519.

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