

Certificate of Analysis

Print Date: Sep 17th 2018

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Product Name: FFN511 Catalog No.: 3878 Batch No.: 2

CAS Number: 1004548-96-2

IUPAC Name: 9-(2-Aminoethyl)-2,3,6,7-tetrahydro-1*H*,5*H*,11*H*-[1]-benzopyrano[6,7,8-*ij*]quinolizin-11-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{17}H_{20}N_2O_2.\frac{1}{4}H_2O$

Batch Molecular Weight: 288.85

Physical Appearance: Yellow solid

Solubility: 1eq. HCl to 25 mM DMSO to 5 mM

Store at +4°C

Storage:

Batch Molecular Structure:

NΗ₂

2. ANALYTICAL DATA

TLC: $R_f = 0.09$ (Chloroform:Methanol [9:1])

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure **Mass Spectrum:** Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

> Theoretical 70.69 7.15 9.73 70.78 9.73 Found 7.09



Product Information

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Description:

Fluorescent false neurotransmitter (FFN). Targets neuronal vesicular monoamine transporter (VMAT) 2; inhibits serotonin binding to VMAT2 (IC $_{50}$ = 1 μ M). Excitation and emission maxima are 406 and 501 nm in pH 7 buffer, respectively.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{17}H_{20}N_2O_2.\frac{1}{4}H_2O$

Batch Molecular Weight: 288.85 Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

1eq. HCl to 25 mM DMSO to 5 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:

Gubernator *et al* (2009) Fluorescent false neurotransmitters visualize dopamine release from individual presynaptic terminals. Science **324** 1441. PMID: 19423778.

Zhang et al (2009) Dopamine release at individual presynaptic terminals visualized with FFNs. J.Vis.Exp. 30. PMID: 19721412.

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