

Certificate of Analysis

Print Date: Sep 4th 2019

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Product Name: CX 614 Catalog No.: 5149 Batch No.: 2

CAS Number: 191744-13-5

IUPAC Name: 2,3,6a,7,8,9-Hexahydro-11*H*-1,4-dioxino[2,3-*g*]pyrrolo[2,1-*b*][1,3]benzoxazin-11-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{13}H_{13}NO_4$ Batch Molecular Weight:247.25Physical Appearance:White solid

Solubility: DMSO to 100 mM

ethanol to 50 mM

Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.35$ (Ethyl acetate:Petroleum ether [6:4])

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 63.15 5.3 5.67 Found 63.14 5.32 5.68

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Product Information

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Description:

AMPAkine; positive allosteric modulator of AMPA. Prototypical benzamide which occupies subsite A only. Modulates channel deactivation and desensitization.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₃H₁₃NO₄ Batch Molecular Weight: 247.25 Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM ethanol to 50 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:

Harms et al (2013) Functional analysis of a novel positive allosteric modulator of AMPA receptors derived from a structure-based drug design strategy. Neuropharmacology 64 45. PMID: 22735771.

Timm *et al* (2011) Structural and functional analysis of two new positive allosteric modulators of GluA2 desensitization and deactivation. Mol.Pharmacol. *80* 267. PMID: 21543522.

Hennegriff *et al* (1997) Stable expression of recombinant AMPA receptor subunits: binding affinities and effects of allosteric modulators. J.Neurochem. *68* 2424. PMID: 9166736.

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