Certificate of Analysis

Product Name: **JNJ 78911118** **Catalog No.: 8970** **Batch No.: 1**

IUPAC Name: 5-(2-(4-Chloropyridin-2-yl)-2,2-difluoroethoxy)-6-methyl-*N*-(pyridin-3-ylmethyl)pyrazine-2-carboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{19}H_{16}ClF_2N_5O_2$

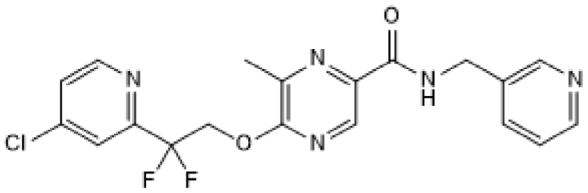
Batch Molecular Weight: 419.82

Physical Appearance: Off White solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.6% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.36	3.84	16.68
Found	54.5	3.71	16.49

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Name: **JNJ 78911118** **Catalog No.: 8970** **Batch No.: 1**

IUPAC Name: 5-(2-(4-Chloropyridin-2-yl)-2,2-difluoroethoxy)-6-methyl-*N*-(pyridin-3-ylmethyl)pyrazine-2-carboxamide

Description:

JNJ 78911118 is a potent, GluN2A-selective NMDA antagonist (IC_{50} = 44 nM). JNJ 78911118 shows >200-fold selectivity against GluN1/2B, 2C and 2D receptors. In vitro, JNJ 78911118 promotes increases in dendritic complexity and synapse number. In vivo, JNJ 78911118 increases mEPSC frequency in rat cortical neurons, and heart rate and blood pressure in rat toxicological studies. JNJ 78911118 is orally bioavailable and blood-brain barrier penetrant.

Physical and Chemical Properties:

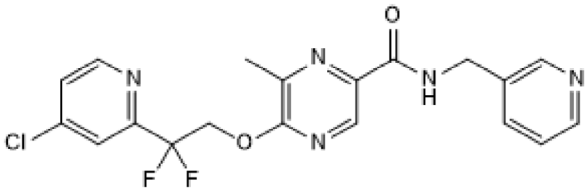
Batch Molecular Formula: $C_{19}H_{16}ClF_2N_5O_2$

Batch Molecular Weight: 419.82

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

This compound is supplied in conjunction with the Structural Genomics Consortium. For further characterization details, please visit the JNJ 78911118 probe summary on the SGC website.

References:

Bischoff *et al* (2025) Design, synthesis, and characterization of GluN2A negative allosteric modulators suitable for *in vivo* exploration. J.Med.Chem. ***68*** 4672. PMID: 39960408.

Lord *et al* (2025) Pharmacological characterisation of JNJ-78911118, a novel, centrally-penetrant, selective GluN2A antagonist. Br.J.Pharmacol. ***182*** 4080. PMID: 40361296.

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