

Certificate of Analysis

www.tocris.com

Product Name: ISX 9

Catalog No.: 4439

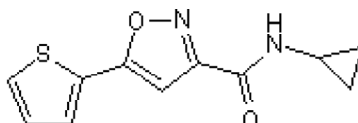
Batch No.: 3

CAS Number: 832115-62-5

IUPAC Name: *N*-Cyclopropyl-5-(2-thienyl)-3-isoxazolecarboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₀N₂O₂S.
Batch Molecular Weight: 234.27
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
 ethanol to 50 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	56.39	4.3	11.96
Found	56.32	4.21	11.81

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

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Description:

ISX 9 is a neurogenic agent. Mediates neuroD reporter gene induction via activation of Ca²⁺ influx; increases expression of neurogenic differentiation 1 (NeuroD1) transcription factor. Induces neuronal differentiation in human cortical neuronal cells (HCN), adult mouse whole brain (MWB) and subventricular zone (SVZ) progenitors. ISX 9 is also shown to induce cardiomyogenic differentiation of Notch-activated epicardium-derived cells in vitro. When used in combination with other small molecules, ISX 9 directs differentiation of pancreatic progenitors towards β cells. Used in protocol to differentiate fibroblasts directly into neurons (see ... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

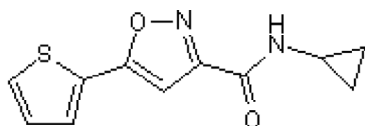
Batch Molecular Formula: C₁₁H₁₀N₂O₂S.

Batch Molecular Weight: 234.27

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Liu *et al* (2021) Chemical combinations potentiate human pluripotent stem cell-derived 3D pancreatic progenitor clusters toward functional β cells. *Nat. Commun.* **12** 3330. PMID: 34099664.

Russell *et al* (2012) Targeting native adult heart progenitors with cardiogenic small molecules. *ACS Chem. Biol.* **7** 1067. PMID: 22413910.

Dioum *et al* (2011) A small molecule differentiation inducer increases Ins production by pancreatic β cells. *Proc. Natl. Acad. Sci. U.S.A.* **108** 20713. PMID: 22143803.

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. *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.

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