



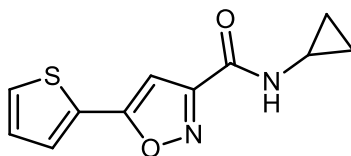
Catalog # 10-1357

ISX9

CAS# 832115-62-5

N-cyclopropyl-5-(2-thienyl)-3-isoxazolecarboxamide

Lot # L104230



Promotes neurogenesis *in vivo* enhancing the proliferation and differentiation of hippocampal subgranular zone neuroblasts and enhances memory¹. Induces robust neuronal differentiation in adult neural stem cells². Increases *insulin production* by pancreatic β cells³. Blocks malignant astrocyte proliferation, downregulates their astrocyte character, induces reentry into the cell cycle and upregulates neuronal gene expression⁴. Induces sensory neurons from neuroepithelial stem cells.⁵ Potentiates cell proliferation and neuronal commitment in the rat dentate gyrus.⁶

- 1) Petrik *et al.* (2012), *Functional and mechanistic exploration of an adult neurogenesis-promoting small molecule*; FASEB J., **26** 3148
- 2) Schneider *et al.* (2008), *Small-molecule activation of neuronal cell fate*; Nat. Chem. Biol., **4** 408
- 3) Dioum *et al.* (2011), *A small molecule differentiation inducers increases insulin production by pancreatic β cells*; Proc. Natl. Acad. Sci. USA, **108** 20713
- 4) Zhang *et al.* (2011), *Small molecule blocks malignant astrocyte proliferation and induces neuronal gene expression*; Differentiation, **81** 233
- 5) Ali *et al.* (2016) *Induction of sensory neurons from neuroepithelial stem cells by the ISX9 small molecule*; Am. J. Stem Cells, **5** 19
- 6) Bettio *et al.* (2016) *ISX-9 can potentiate cell proliferation and neuronal commitment in the rat dentate gyrus*; Neuroscience **332** 212

PHYSICAL DATA

Molecular Weight: 234.28
Molecular Formula: C₁₁H₁₀N₂O₂S
Purity: 99% by TLC
NMR: (Conforms)
Solubility: DMSO (up to 60 mg/ml) or Ethanol (up to 16 mg/ml with warming)
Physical Description: Tan solid
Storage and Stability: Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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