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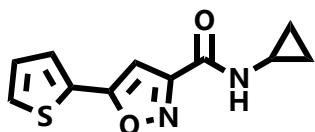
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## Neurogenic Modulator – ISX9

**Chemical Name:** N-cyclopropyl-5-(thiophen-2-yl)isoxazole-3-carboxamide



Molecular Weight:	234.27
Formula:	C <sub>11</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub> S
Purity:	≥98%
CAS#:	832115-62-5
Solubility:	DMSO up to 100 mM EtOH up to 50 mM
Storage	Powder: 4°C 1 year DMSO: 4°C 3 month -20°C 1 year

### Biological Activity:

ISX9 is a neurogenic modulator. It mediates *neuroD* reporter gene induction via activation of Ca<sup>2+</sup> influx, and increases expression of neurogenic differentiation 1 (NeuroD1) transcription factor. It induces neuronal differentiation in human cortical neuronal cells (HCN), adult mouse whole brain (MWB) and subventricular zone (SVZ) progenitors. ISX9 is also shown to induce cardiomyogenic differentiation of Notch-activated epicardium-derived cells *in vitro*.

### How to Use:

**In vitro:** ISX9 was used at 10-20 μM final concentration in vitro and in cellular assays.

**In vivo:**

### Reference:

1. Schneider JW, et al. Small-molecule activation of neuronal cell fate. (2008) *Nat Chem Biol.* 4(7):408-10.
2. Dioum EM, et al. A small molecule differentiation inducer increases insulin production by pancreatic β cells. (2011) *Proc Natl Acad Sci USA.* 108(51):20713-8.
3. Zhang L, et al. Small-molecule blocks malignant astrocyte proliferation and induces neuronal gene expression. (2011) *Differentiation.* 81(4):233-42.
4. Russell JL, et al. Targeting native adult heart progenitors with cardiogenic small molecules. (2012) *ACS Chem Biol.* 7(6):1067-76.
5. Li X, et al. Small-Molecule-Driven Direct Reprogramming of Mouse Fibroblasts into Functional Neurons. (2015) *Cell Stem Cell.* 17(2):195-203.

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