

Small Molecules

Neurodazine

Inducer of neural differentiation

Catalog # 73292

10 mg



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Product Description

Neurodazine is a cell-permeable tri-substituted imidazole and neurogenic agent (Williams et al. 2007).

Molecular Name: Neurodazine

Alternative Names: Not applicable

CAS Number: 937807-66-4

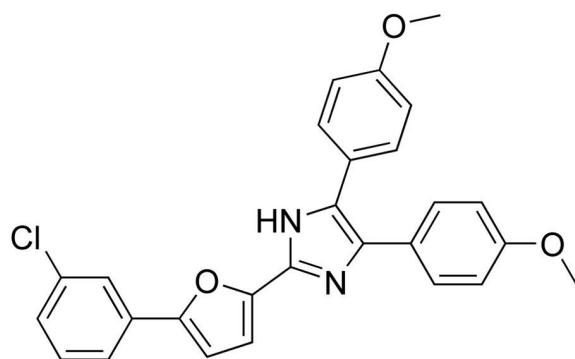
Chemical Formula: C₂₇H₂₁ClN₂O₃

Molecular Weight: 456.9 g/mol

Purity: ≥ 98%

Chemical Name: 2-[5-(3-chlorophenyl)-2-furanyl]-4,5-bis(4-methoxyphenyl)-1H-imidazole

Structure:



Properties

Physical Appearance: A crystalline solid

Storage: Product stable at -20°C as supplied. Protect from prolonged exposure to light.

Stable as supplied for 12 months from date of receipt.

Solubility:

· DMSO ≤ 40 mM

· Absolute ethanol ≤ 20 mM

For example, to prepare a 10 mM stock solution in DMSO, resuspend 10 mg in 2.19 mL of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

Published Applications

DIFFERENTIATION

- Induces neurogenesis of C2C12 myoblasts as well as mature human muscle cells, marked by upregulation of neural genes (Williams et al. 2007; Williams et al. 2008).
- Induces neurogenesis and prevents astrocyte differentiation of P19 mouse embryonic carcinoma cells (Kim et al.).
- Induces neuronal differentiation of human (SH-SY5Y) and mouse (Neuro-2a) neuroblastoma cells, and mouse NIH 3T3 fibroblast cells (Halder et al.).

References

Halder D et al. (2015) Synthetic small molecules that induce neuronal differentiation in neuroblastoma and fibroblast cells. *Mol Biosyst* 11(10): 2727–37.

Kim G-H et al. (2014) Imidazole-based small molecules that promote neurogenesis in pluripotent cells. *Angew Chem Int Ed Engl* 53(35): 9271–4.

Williams DR et al. (2008) Fluorescent high-throughput screening of chemical inducers of neuronal differentiation in skeletal muscle cells. *Nat Protoc* 3(5): 835–9.

Williams DR et al. (2007) Synthetic small molecules that induce neurogenesis in skeletal muscle. *J Am Chem Soc* 129(30): 9258–9.

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