

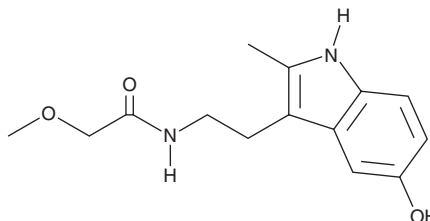
PRODUCT INFORMATION



SPRi 3

Item No. 30950

CAS Registry No.: 1292285-54-1
Formal Name: N-[2-(5-hydroxy-2-methyl-1H-indol-3-yl)ethyl]-2-methoxyacetamide
MF: C₁₄H₁₈N₂O₃
FW: 262.3
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

SPRi 3 is supplied as a solid. A stock solution may be made by dissolving the SPRi 3 in the solvent of choice, which should be purged with an inert gas. SPRi 3 is soluble in organic solvents such as ethanol and DMSO. The solubility of SPRi 3 in these solvents is approximately 100 mM.

Description

SPRi 3 is an inhibitor of sepiapterin reductase (SPR), an enzyme that catalyzes the formation of tetrahydrobiopterin (BH₄), with IC₅₀ values of 62 and 14 nM for the recombinant human and rat enzymes, respectively.¹ It is selective for SPR over GTP cyclohydroxylase 1 (GCH1) in primary mouse dorsal root ganglia sensory neurons at 10 μM.² SPRi 3 (50 μM) inhibits proliferation of anti-CD3 and anti-CD28 antibody-stimulated isolated human peripheral blood mononuclear cells (PBMCs) or CD4⁺ T cells.³ Intraperitoneal administration of SPRi 3 (300 mg/kg) decreases brain BH₄ levels and reduces mechanical allodynia in mouse models of peripheral neuropathy induced by spared nerve injury (SNI) or chronic constriction injury (CCI).² It also decreases macrophage infiltration and thermal hyperalgesia in the inflamed joints of a mouse model of rheumatoid arthritis induced by complete Freund's adjuvant (CFA) at the same dose.

References

1. Meyer, J.T., Sparling, B.A., McCarty, W.J., *et al.* Pharmacological assessment of sepiapterin reductase inhibition on tactile response in the rat. *J. Pharmacol. Exp. Ther.* **371**(2), 476-486 (2019).
2. Latremoliere, A., Latini, A., Andrews, N., *et al.* Reduction of neuropathic and inflammatory pain through inhibition of the tetrahydrobiopterin pathway. *Neuron*. **86**(6), 1393-1406 (2015).
3. Cronin, S.J.F., Seehus, C., Weidinger, A., *et al.* The metabolite BH₄ controls T cell proliferation in autoimmunity and cancer. *Nature* **563**(7732), 564-568 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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