

Certificate of Analysis

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Product Name: SPRI 3

Catalog No.: 6597

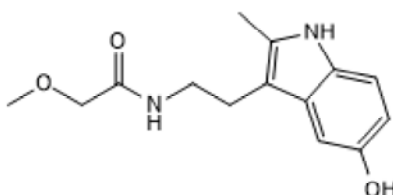
Batch No.: 2

CAS Number: 1292285-54-1

IUPAC Name: *N*-[2-(5-Hydroxy-2-methyl-1*H*-indol-3-yl)ethyl]-2-methoxyacetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₈N₂O₃
Batch Molecular Weight: 262.3
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.11	6.92	10.68
Found	64.02	7.02	10.57

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

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CAS Number: 1292285-54-1

IUPAC Name: N-[2-(5-Hydroxy-2-methyl-1H-indol-3-yl)ethyl]-2-methoxyacetamide

Description:

Potent sepiapterin reductase (SPR) inhibitor (IC₅₀ = 53 - 74 nM for human SPR). Inhibits BH4 synthesis pathway and attenuates proliferation in naive CD4⁺ T cells. Suppresses proliferation of human effector CD4⁺ T cells following stimulation. Reduces SPR activity in mouse primary cultures of sensory neurons (IC₅₀ = 450 nM). Ameliorates colitis, suppressing the intestinal infiltration of T cells and other immune cells in vivo. Also reduces immune-cell infiltration into mouse lungs. Reduces neuropathic and inflammatory pain in mouse models.

Physical and Chemical Properties:

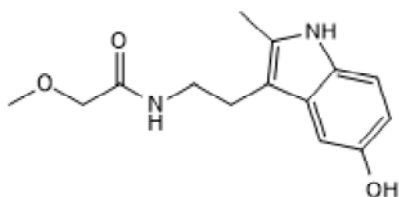
Batch Molecular Formula: C₁₄H₁₈N₂O₃

Batch Molecular Weight: 262.3

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Cronin et al (2018) The metabolite BH4 controls T cell proliferation in autoimmunity and cancer. *Nature* **563** 564. PMID: 30405245 .

Haruki et al (2016) Tetrahydrobiopterin biosynthesis as a potential target of the kynurenine pathway metabolite xanthurenic acid. *J.Biol.Chem.* **291** 652. PMID: 26565027.

Latremoliere et al (2015) Reduction of neuropathic and inflammatory pain through inhibition of the tetrahydrobiopterin pathway. *Neuron* **86** 1393. PMID: 26087165.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 100 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. Our standard recommendations are:

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.

Licensing Information:

Sold under license from the Children's Medical Center Corporation.

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