

**Product Name:** SPRI 3

**Catalog No.:** 6597

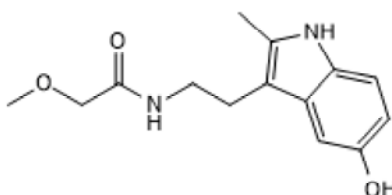
**Batch No.:** 1

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:** C<sub>14</sub>H<sub>18</sub>N<sub>2</sub>O<sub>3</sub>  
**Batch Molecular Weight:** 262.3  
**Physical Appearance:** Off 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  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	64.11	6.92	10.67
Found	64.16	7.02	10.59

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

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**Description:**

Potent sepiapterin reductase (SPR) inhibitor (IC<sub>50</sub> = 53 - 74 nM for human SPR). Inhibits BH4 synthesis pathway and attenuates proliferation in naive CD4<sup>+</sup> T cells. Suppresses proliferation of human effector CD4<sup>+</sup> T cells following stimulation. Reduces SPR activity in mouse primary cultures of sensory neurons (IC<sub>50</sub> = 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:**

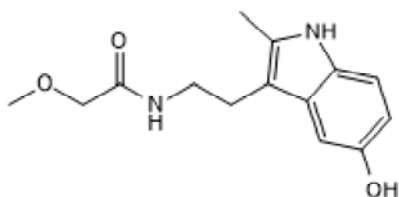
Batch Molecular Formula: C<sub>14</sub>H<sub>18</sub>N<sub>2</sub>O<sub>3</sub>

Batch Molecular Weight: 262.3

Physical Appearance: Off White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**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.

**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.

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