

# Certificate of Analysis

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**Product Name:** Zolmitriptan

**Catalog No.:** 4657

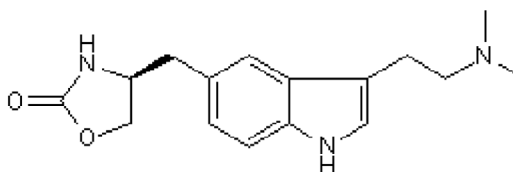
**Batch No.:** 1

**CAS Number:** 139264-17-8

**IUPAC Name:** (4S)-4-((3-(2-(Dimethylamino)ethyl)-1*H*-indol-5-yl)methyl)-2-oxazolidinone

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>21</sub>N<sub>3</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 287.36  
**Physical Appearance:** Off-white solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = -2.2 (Concentration = 1, Solvent = Methanol)  
**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	66.88	7.37	14.62
Found	66.59	7.09	14.59

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

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**Description:**

Zolmitriptan is a potent 5-HT<sub>1B/1D/1F</sub> agonist (*K<sub>i</sub>* values are 0.63, 5.01 and 63.09 nM for h5-HT<sub>1D</sub>, h5-HT<sub>1B</sub> and h5-HT<sub>1F</sub> receptors respectively). Inhibits trigeminal nerve stimulation-mediated neurogenic plasma protein extravasation in guinea pigs; blocks long excitatory postsynaptic potentials (EPSPs) in a rat model of spinal cord injury.

**Physical and Chemical Properties:**

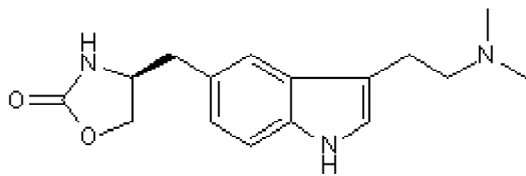
Batch Molecular Formula: C<sub>16</sub>H<sub>21</sub>N<sub>3</sub>O<sub>2</sub>

Batch Molecular Weight: 287.36

Physical Appearance: Off-white solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Store at +4°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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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.

**References:**

**Murray *et al*** (2011) Polysynaptic excitatory postsynaptic potentials that trigger spasms after spinal cord injury in rats are inhibited by 5-HT<sub>1B</sub> and 5-HT<sub>1F</sub> receptors. *J.Neurophysiol.* **106** 925. PMID: 21653728.

**Martin *et al*** (1997) Receptor specificity and trigemino-vascular inhibitory actions of a novel 5-HT<sub>1B/1D</sub> receptor partial agonist, 311C90 (zolmitriptan). *Br.J.Pharmacol.* **121** 157. PMID: 9154322.

**Pauwels *et al*** (1997) How efficacious are 5-HT<sub>1B/D</sub> receptor ligands: an answer from GTP gamma S binding studies with stably transfected C6-glia cell lines. *Neuropharmacology* **36** 499. PMID: 9225275.

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