

Certificate of Analysis

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Product Name: Zolmitriptan

Catalog No.: 4657

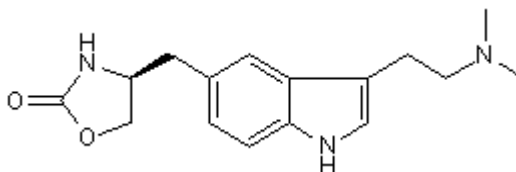
Batch No.: 1

CAS Number: 139264-17-8

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₂₁N₃O₂
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
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -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:

Potent 5-HT_{1B/1D/1F} agonist (K_i values are 0.63, 5.01 and 63.09 nM for h5-HT_{1D}, h5-HT_{1B} and h5-HT_{1F} 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:

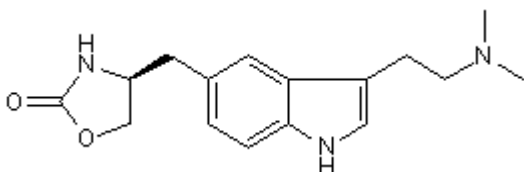
Batch Molecular Formula: C₁₆H₂₁N₃O₂

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. 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.

References:

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

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

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

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