



LKT Laboratories, Inc.

## Zolmitriptan

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### Product Information

**Product ID** Z5745

**CAS No.** 139264-17-8

**Chemical Name** (S)-4-({3-[2-(dimethylamino)ethyl]-1H-indol-5-yl}methyl)-1,3-oxazolidin-2-one

**Synonym**

**Formula** C<sub>16</sub>H<sub>21</sub>N<sub>3</sub>O<sub>2</sub>

**Formula Wt.** 287.36

**Melting Point**

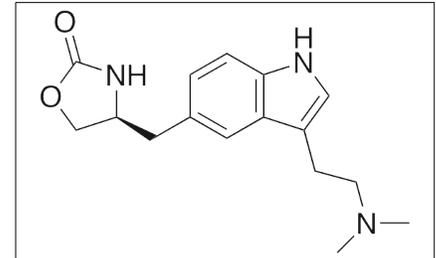
**Purity** ≥99%

**Solubility** slightly soluble in water (1.3 mg/mL at 250°C) but shows greater solubility in 0.1M hydrochloric acid. Zolmitriptan has a pKa of 9.6.

**Store Temp** Ambient

**Ship Temp** Ambient

**Description** Zolmitriptan is a synthetic tryptamine derivative that acts as an agonist at 5-HT<sub>1B/1D</sub> receptors, binding primarily in the ventral pallidum, external globus pallidus, substantia nigra, visual cortex, and nucleus accumbens. This compound displays anti-inflammatory, anti-migraine, and neuroprotective activities. Zolmitriptan treats migraines, inhibiting dilation and inflammation of cranial vessels. This compound also alters NMDA receptor-evoked cGMP and NO signaling. In addition to its modulation of neurotransmitter levels, zolmitriptan inhibits action potential discharge of trigeminal neurons, suggesting antinociceptive activity as well.



**Bulk quantities available upon request**

Product ID	Size
Z5745	25 mg
Z5745	100 mg
Z5745	250 mg

**References** Lindhe O, Almqvist P, Kågedal M, et al. Autoradiographic Mapping of 5-HT<sub>1B/1D</sub> Binding Sites in the Rhesus Monkey Brain Using [carbonyl-<sup>14</sup>C]zolmitriptan. *Int J Mol Imaging*. 2011;2011:694179. PMID: 22013519.

Kayser V, Latrémoilière A, Hamon M, et al. N-methyl-D-aspartate receptor-mediated modulations of the anti-allodynic effects of 5-HT<sub>1B/1D</sub> receptor stimulation in a rat model of trigeminal neuropathic pain. *Eur J Pain*. 2011 May;15(5):451-8. PMID: 20965753.

Stepień A, Chalimoniuk M, Strosznajder J. Serotonin 5HT<sub>1B/1D</sub> receptor agonists abolish NMDA receptor-evoked enhancement of nitric oxide synthase activity and cGMP concentration in brain cortex slices. *Cephalalgia*. 1999 Dec;19(10):859-65. PMID: 10668104.

Cumberbatch MJ, Hill RG, Hargreaves RJ. The effects of 5-HT<sub>1A</sub>, 5-HT<sub>1B</sub> and 5-HT<sub>1D</sub> receptor agonists on trigeminal nociceptive neurotransmission in anaesthetized rats. *Eur J Pharmacol*. 1998 Nov 27;362(1):43-6. PMID: 9865528.

Pascual J. Mechanism of action of zolmitriptan. *Neurologia*. 1998 Oct;13 Suppl 2:9-15. PMID: 9859690.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.