

Certificate of Analysis

Print Date: Apr 9th 2020

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Product Name: Zolpidem Catalog No.: 0655 Batch No.: 8

CAS Number: 82626-48-0

IUPAC Name: N,N,6-Trimethyl-2-(4-methylphenyl)imidazo[1,2-a]pyridine-3-acetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{19}H_{21}N_3O$ Batch Molecular Weight:307.39Physical Appearance:White solid

Solubility: ethanol to 100 mM DMSO to 50 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure



Product Information

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Description:

Benzodiazepine agonist with high selectivity for α 1-subunit-containing GABA_A receptors (BZ/ ω_1 site) and very high intrinsic activity. K_i values are 20, 400 and \geq 5000 nM for α 1-, α 2-/ α 3-, and α 5-containing GABA_A receptors respectively. Hypnotic that does not induce physical dependence.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{19}H_{21}N_3O$ Batch Molecular Weight: 307.39 Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:

ethanol to 100 mM DMSO to 50 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.

Other Information:

INFORMATION FOR CUSTOMERS IN THE UK ONLY

This product is a Schedule 4.1 Home Office controlled substance and customers in the UK are required to hold the relevant licence or be exempt from restrictions in order to purchase and possess this material.

References:

Soderhielm et al (2018) Probing the molecular basis for affinity/potency- and efficacy-based subtype-selectivity exhibited by benzodiazepine-site modulators at $GABA_A$ receptors. Biochem.Pharmacol. **158** 339. PMID: 30121248.

Crestani et al (2000) Mechanism of action of the hypnotic zol. in vivo. Br.J.Pharmacol. 131 1251. PMID: 11090095.

Perrault *et al* (1992) Lack of tolerance and physical dependence upon repeated treatment with the novel hypnotic zol. J.Pharmacol.Exp.Ther. **263** 298. PMID: 1403792.

Arbilla et al (1986) High affinity [3H]zolpidem binding in the rat brain: an imidazopyridine with agonist properties at central benzodiazepine receptors. Eur.J.Pharmacol. **130** 257. PMID: 2878820.

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