

Product Data Sheet

Product Name: Alpidem
Cat. No.: GC49199

Chemical Properties

Cas. No. 82626-01-5

SMILES O=C(CC1=C(C2=CC=C(C=C2)Cl)N=C3C=CC(Cl)=CN31)N(CCC)CCC

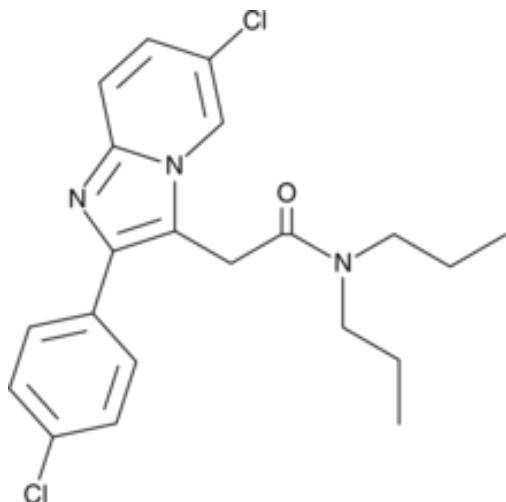
Formula C₂₁H₂₃Cl₂N₃O M.Wt 404.3

Solubility DMSO : 25 mg/mL (61.83 mM; Need ultrasonic) Storage -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Alpidem is an anxiolytic agent.¹ It selectively binds to $\alpha_1\beta_2\gamma_2$ subunit-containing GABA_A receptors over $\alpha_5\beta_2\gamma_2$ subunit-containing GABA_A receptors in HEK293 cells (IC_{50} s = 0.017 and ≥ 10 μ M, respectively, for the recombinant rat receptors).² Alpidem also binds to the GABA_A/benzodiazepine receptor complex and translocator protein 18 kDa (TSPO) with IC_{50} values of 0.028 and 0.0079 μ M,

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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respectively.³ It reduces marble burying in mice, indicating anxiolytic activity, with a minimum effective dose (MED) of 10 mg/kg.⁴ Unlike the benzodiazepine alprazolam, alpidem does not induce sedation in mice when administered at doses up to 2 mg/kg.⁵ Formulations containing alpidem have previously been used in the treatment of generalized anxiety disorder.

1. Skolnick, P. Anxiolytic activity: On a quest for the holy grail *Trends Pharmacol. Sci.* 33(11):611-620 (2012)
2. Faure-Halley, C., Graham, D., Arbilla, S., et al. Expression and properties of recombinant $\alpha 1\beta 2\gamma 2$ and $\alpha 5\beta 2\gamma 2$ forms of the rat GABAA receptor *Eur. J. Pharmacol.* 246(3):283-287 (1993)
3. Trapani, G., Franco, M.C., Ricciardi, L., et al. Synthesis and binding affinity of 2-phenylimidazo[1,2- α]pyridine derivatives for both central and peripheral benzodiazepine receptors. A new series of high-affinity and selective ligands for the peripheral type *J. Med. Chem.* 40(19):3109-3118 (1997)
4. Zivkovic, B., Morel, E., Joly, D., et al. Pharmacological and behavioral profile of alpidem as an anxiolytic *Pharmacopsychiatry* 23(Suppl. 3):108-113 (1990)
5. Hascoët, M., and Bourin, M. Anticonflict effect of alpidem as compared with the benzodiazepine alprazolam in rats *Pharmacol. Biochem. Behav.* 56(2):317-324 (1997)

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