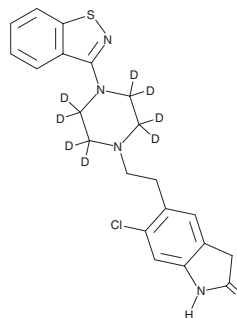


PRODUCT INFORMATION



Ziprasidone-d₈ Item No. 30737

CAS Registry No.: 1126745-58-1
Formal Name: 5-[2-[4-(1,2-benzisothiazol-3-yl)-1-piperazinyl-2,2,3,3,5,5,6,6-d₈]ethyl]-6-chloro-1,3-dihydro-2H-indol-2-one
Synonym: CP-88,059-d₈
MF: C₂₁H₁₃D₈ClN₄OS
FW: 421.0
Chemical Purity: ≥98% (Ziprasidone)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₈); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ziprasidone-d₈ is intended for use as an internal standard for the quantification of ziprasidone (Item No. 15031) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Ziprasidone-d₈ is supplied as a solid. A stock solution may be made by dissolving the ziprasidone-d₈ in the solvent of choice, which should be purged with an inert gas. Ziprasidone-d₈ is slightly soluble in DMSO and methanol.

Description

Ziprasidone is an atypical antipsychotic.¹ It is an agonist of the serotonin (5-HT) receptor subtype 5-HT_{1A} (EC₅₀ = 36.31 nM for inhibition of forskolin-induced adenylate cyclase activity in HeLa cells expressing human receptors), as well as an inverse agonist of 5-HT_{1D} receptors (IC₅₀ = 2.69 nM) and a partial agonist of 5-HT_{1B} receptors (EC₅₀ = 6.17 nM) in [³⁵S]GTPγS binding assays.^{2,3} Ziprasidone is an antagonist at 5-HT_{2A} and dopamine D₂ receptors (K_is = 1.15 and 1.29 nM, respectively) in cell-based assays.⁴ It inhibits d-amphetamine-induced hyperactivity and apomorphine-induced stereotypy in rats (ID₅₀s = 1.53 and 2.43 mg/kg, respectively). Formulations containing ziprasidone have been used in the treatment of schizophrenia and bipolar I disorder.

References

1. Seeman, P. Atypical antipsychotics: Mechanism of action. *Can. J. Psychiatry* **47**(1), 27-38 (2002).
2. Schmidt, A.W., Lebel, L.A., Howard, H.R., Jr., *et al.* Ziprasidone: A novel antipsychotic agent with a unique human receptor binding profile. *Eur. J. Pharmacol.* **425**(3), 197-201 (2001).
3. Audinot, V., Newman-Tancredi, A., Cussac, D., *et al.* Inverse agonist properties of antipsychotic agents at cloned, human (h) serotonin (5-HT)_{1B} and h5-HT_{1D} receptors. *Neuropsychopharmacology* **25**(3), 410-422 (2001).
4. Seeger, T.F., Seymour, P.A., Schmidt, A.W., *et al.* Ziprasidone (CP-88,059): A new antipsychotic with combined dopamine and serotonin receptor antagonist activity. *J. Pharmacol. Exp. Ther.* **275**(1), 101-113 (1995).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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