

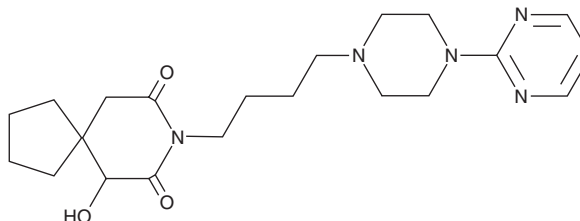
PRODUCT INFORMATION



6-hydroxy Buspirone

Item No. 39807

CAS Registry No.: 125481-61-0
Formal Name: 6-hydroxy-8-[4-[4-(2-pyrimidinyl)-1-piperazinyl]butyl]-8-azaspiro[4.5]decane-7,9-dione
Synonyms: BMS-52821, BMY 28674
MF: C₂₁H₃₁N₅O₃
FW: 401.5
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

6-hydroxy Buspirone is supplied as a solid. A stock solution may be made by dissolving the 6-hydroxy buspirone in the solvent of choice, which should be purged with an inert gas. 6-hydroxy Buspirone is soluble in methanol and DMSO.

Description

6-hydroxy Buspirone is an active metabolite of the anxiolytic buspirone.¹⁻³ It is formed from buspirone by the cytochrome P450 (CYP) isoform CYP3A4.⁴ 6-hydroxy Buspirone binds to the serotonin (5-HT) receptor subtype 5-HT_{1A} in rat hippocampus and dorsal raphe (EC₅₀s = 4 and 1 μM, respectively) and is a dopamine D₂, D₃, and D₄ receptor antagonist (IC₅₀s = 3.1, 4.9, and 0.85 μM, respectively).^{1,2} It also inhibits organic cation transporter 1 (OCT1), OCT2, and OCT3 in S2 proximal tubule cells expressing the human transporters in a concentration-dependent manner.³

References

1. Wong, H., Dockens, R.C., Pajor, L., *et al.* 6-Hydroxybuspirone is a major active metabolite of buspirone: Assessment of pharmacokinetics and 5-hydroxytryptamine_{1A} receptor occupancy in rats. *Drug Metab. Dispos.* **35**(8), 1387-1392 (2007).
2. Bergman, J., Roof, R.A., Furman, C.A., *et al.* Modification of cocaine self-administration by buspirone (Buspar®): Potential involvement of D₃ and D₄ dopamine receptors. *Int. J. Neuropsychopharmacol.* **16**(2), 445-458 (2013).
3. Jinakote, M., Jutabha, P., Anzai, N., *et al.* Interaction of buspirone and its major metabolites with human organic cation transporters. *Fundam. Clin. Pharmacol.* **37**(4), 833-842 (2023).
4. Zhu, M., Zhao, W., Jimenez, H., *et al.* Cytochrome P450 3A-mediated metabolism of buspirone in human liver microsomes. *Drug Metab. Dispos.* **33**(4), 500-507 (2005).

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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