PRODUCT INFORMATION



(±)-O-Desmethyl Venlafaxine Item No. 9001881

| CAS Registry No.: Formal Name: | 93413-62-8 4-[2-(dimethylamino)-1-(1-hydroxycyclohexyl) ethyl]-phenol | ОН |
|--|---|----|
| Synonyms: | Desvenlafaxine, DVS 233, MDD-XR | |
| MF: | C ₁₆ H ₂₅ NO ₂ | |
| FW: | 263.4 | |
| Purity: | ≥98% | |
| UV/Vis.: | λ _{max} : 226, 275 nm | |
| Supplied as: | A crystalline solid | |
| Storage: | -20°C | OH |
| Stability: | ≥2 years | |
| Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis. | | |

Laboratory Procedures

(±)-O-Desmethyl venlafaxine is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-O-desmethyl venlafaxine in the solvent of choice. (±)-O-Desmethyl venlafaxine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of (±)-O-desmethyl venlafaxine in these solvents is approximately 0.10, 0.25, and 5 mg/ml, respectively.

(±)-O-Desmethyl venlafaxine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (±)-O-desmethyl venlafaxine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (±)-O-Desmethyl venlafaxine has a solubility of approximately 0.30 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(±)-O-Desmethyl venlafaxine is the active metabolite of venlafaxine (Item No. 11567), an inhibitor of the reuptake of both serotonin and norepinephrine.¹⁻³ Venlafaxine is metabolized by cytochrome P450 2D6, yielding O-desmethyl venlafaxine, which is pharmacologically similar to the parent drug.^{4,5} (±)-O-Desmethyl venlafaxine inhibits the human serotonin and norepinephrine transporters with IC₅₀ values of 47.3 and 531.3 nM, respectively.⁶

References

- 1. Liu, M., Sun, Y., Zhao, S., et al. Exp. Ther. Med. 12(3), 1611-1617 (2016).
- 2. Yardley, J. P., Husbands, G. E. M., Stack, G., et al. J. Med. Chem. 33(10), 2899-2905 (1990).
- 3. Bymaster, F. P., Dreshfield-Ahmad, L. J., Threlkeld, P. G., et al. Neuropsychopharmacology 25(6), 871-880 (2001).
- 4. Otton, S. V., Ball, S. E., Cheung, S. W., et al. Br. J. Clin. Pharmacol. 41(2), 149-156 (1996).
- 5. Owens, M. J., Neal, W., Plott, S. J., et al. J. Pharmacol. Exp. Ther. 283(3), 1305-1322 (1997).
- 6. Deecher, D. C., Beyer, C. E., Johnston, G., et al. J. Pharmacol. Exp. Ther. 318(2), 657-665 (2006).

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

SAFFTY 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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1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM