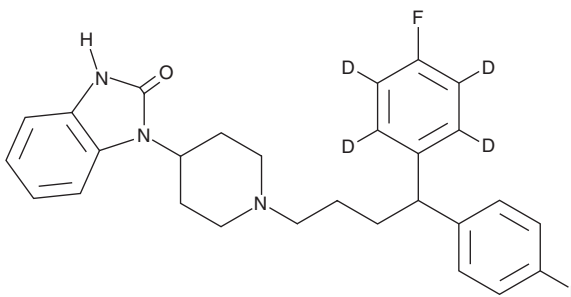


PRODUCT INFORMATION



Pimozide-d₄ Item No. 28617

CAS Registry No.: 1803193-57-8
Formal Name: 1-[1-[4-(4-fluorophenyl)-4-(4-fluorophenyl)-2,3,5,6-d₄]butyl]-4-piperidinyl]-1,3-dihydro-2H-benzimidazol-2-one
MF: C₂₈H₂₅D₄F₂N₃O
FW: 465.6
Chemical Purity: ≥98% (Pimozide)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
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

Pimozide-d₄ is intended for use as an internal standard for the quantification of pimozide (Item No. 16222) 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).

Pimozide-d₄ is supplied as a solid. A stock solution may be made by dissolving the pimozide-d₄ in the solvent of choice, which should be purged with an inert gas. Pimozide-d₄ is soluble in a 1:1 solution of acetonitrile:methanol.

Description

Pimozide-d₄ is an internal standard for the quantification of pimozide (Item No. 16222) by GC- or LC-MS. Pimozide is a dopamine receptor antagonist (K_is = 2.4, 0.3, and 1.8 nM for D₂, D₃, and D₄ receptors, respectively).¹ It also binds to eight additional receptors (K_ds = 25-3,100 nM for the human receptors) and inhibits the voltage-gated sodium channel Na_v1.2 and the voltage-gated potassium channel K_v11.1 (IC₅₀s = 42 and 340 nM, respectively).²⁻⁴ Pimozide (0.5, 1, and 2 mg/kg) decreases the number of licks and reduces fluid intake of a sweetened solution in rats.⁵ It decreases the number of threats and attacks and increases immobility time in the neutral arena aggression test, indicating increased passiveness, in male mice when administered at a dose of 0.75 mg/kg for 10 days.⁶ Formulations containing pimozide have been used in the treatment of Tourette syndrome.

References

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3. Roufos, I., Hay, S., and Schwarz, R.D. *J. Med. Chem.* **39**(7), 1514-1520 (1996).
4. Lau, J.F., Jeppesen, C.B., Rinvall, K., et al. *Bioorg. Med. Chem. Lett.* **16**(20), 5303-5308 (2006).
5. Xenakis, S. and Sclafani, A. *Pharmacol. Biochem. Behav.* **15**(3), 435-442 (1980).
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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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