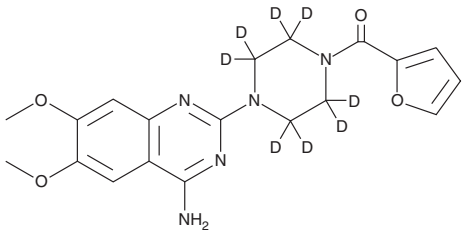
PRODUCT INFORMATION

Prazosin-d_8

Item No. 29094

CAS Registry No.: 1006717-55-0
Formal Name: [4-(4-amino-6,7-dimethoxy-2-quinazolinyl)-1-piperazinyl-2,2,3,3,5,5,6,6-d_8]-2-furanyl-methanone
MF: $C_{19}H_{13}D_8N_5O_4$
FW: 391.5
Chemical Purity: ≥98% (Prazosin)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_8); ≤1% d_0
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

Prazosin-d_8 is intended for use as an internal standard for the quantification of prazosin (Item No. 15023) 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).

Prazosin-d_8 is supplied as a solid. A stock solution may be made by dissolving the prazosin-d_8 in the solvent of choice, which should be purged with an inert gas. Prazosin-d_8 is soluble in chloroform. Prazosin-d_8 is slightly soluble in methanol.

Description

Prazosin is an antagonist of α_1-adrenergic receptors (α_1-ARs).[1,2] It selectively binds to α_1-ARs with K_i values of 0.2, 0.25, and 0.32 nM for the human recombinant α_{1A}-, α_{1B}-, and α_{1D}-ARs, respectively, over α_2-ARs (K_is = 340 and 3.7 nM in α_{2A}-AR-expressing HT-29 cells and α_{2B}-AR-expressing NG108 cells, respectively).[3,4] It also binds to melatonin receptor 3 (MT_3) in hamster brain membranes (IC_{50} = 7.8 nM).[5] Prazosin inhibits peripheral and central postsynaptic α_1-ARs with IC_{50} values of 0.2 and 1.7 nM in isolated dog aorta and rat brain, respectively.[1] It decreases diastolic blood pressure in normal, renal hypertensive, and spontaneously hypertensive rats when administered at a dose of 1 mg/kg.[6] Prazosin (1.5 mg/kg) increases the number of entries and percentage of time spent in the open arms of the elevated plus maze, indicating anxiolytic-like activity, in alcohol-consuming rats and also reduces alcohol intake and alcohol-seeking behavior in alcohol-preferring rats.[7,8]

References

1. Nagatomo, T., Tsuchihashi, H., Sasaki, S., *et al. Jpn. J. Pharmacol.* **37(2)**, 181-187 (1985).
2. Kristek, F. and Koprdova, R. *J. Physiol. Pharmacol.* **62(3)**, 295-301 (2011).
3. Leiker, A.J., DeGraff, W., Choudhuri, R., *et al. Clin. Cancer Res.* **21(12)**, 2792-2801 (2015).
4. Bylund, D.B. and Ray-Prenger, C. *J. Pharmacol. Exp. Ther.* **251(2)**, 640-644 (1989).
5. Paul, P., Lahaye, C., Delagrange, P., *et al. J. Pharmacol. Exp. Ther.* **290(1)**, 334-340 (1999).
6 Fernandes, M., Smith, I.S., Weder, A., *et al. Clin. Sci. Mol. Med. Suppl.* **48**, 181s-184s (1975).
7. Verplaetse, T.L., Rasmussen, D.D., Froehlich, J.C., *et al. Alcohol Clin. Exp. Res.* **36(5)**, 881-886 (2012).
8. Skelly, M.J. and Weiner, J.L. *Brain Behav.* **4(4)**, 468-483 (2014).

CAYMAN CHEMICAL
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