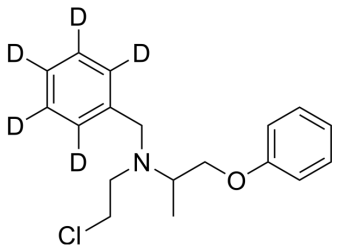
Phenoxybenzamine-d5

Cat. No.:	HY-B0431S
CAS No.:	1309283-11-1
Molecular Formula:	$C_{18}H_{17}D_5ClNO$
Molecular Weight:	308.86
Target:	Adrenergic Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Phenoxybenzamine-d_5 is the deuterium labeled Phenoxybenzamine[1]. Phenoxybenzamine is a nonselective, irreversible, orally active α-adrenoceptor antagonist that is commonly used for the research of hypertension, specifically caused by pheochromocytoma. Phenoxybenzamine also shows antitumor activity[2][3].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. Habbe N, et al. Urapidil in the preoperative treatment of pheochromocytomas: a safe and cost-effective method. World J Surg. 2013 May;37(5):1141-6.

[3]. Lin XB, et al. Anti-tumor activity of phenoxybenzamine hydrochloride on malignant glioma cells. Tumour Biol. 2016 Mar37(3):2901-8.

[4]. Rau TF, et al. Phenoxybenzamine is neuroprotective in a rat model of severe traumatic brain injury. Int J Mol Sci. 2014 Jan 2015(1):1402-17.

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