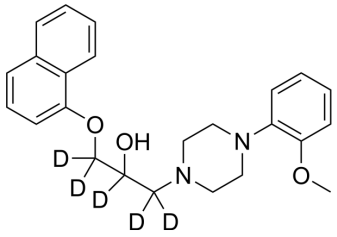
Naftopidil-d_5

Cat. No.:	HY-B0391S1
CAS No.:	2747918-58-5
Molecular Formula:	$C_{24}H_{23}D_5N_2O_3$
Molecular Weight:	397.52
Target:	Adrenergic Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Naftopidil-d_5 is deuterium labeled Naftopidil. Naftopidil (KT-611) is is a selective alpha1-adrenoceptor antagonist, with Kis of 3.7 nM, 20 nM and 1.2 nM for the cloned human α1a-, α1b- and α1d-adrenoceptor subtypes, respectively. Naftopidil has antiproliferative effects. Naftopidil can be used for the research of prostate hyperplasia[1][2].
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;53(2):211-216.

[2]. R Takei, et al. Naftopidil, a novel alpha1-adrenoceptor antagonist, displays selective inhibition of canine prostatic pressure and high affinity binding to cloned human alpha1-adrenoceptors. Jpn J Pharmacol. 1999 Apr;79(4):447-54.

[3]. Yasuhide Hori, et al. Naftopidil, a selective {alpha}1-adrenoceptor antagonist, suppresses human prostate tumor growth by altering interactions between tumor cells and stroma. Cancer Prev Res (Phila). 2011 Jan;4(1):87-96.

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