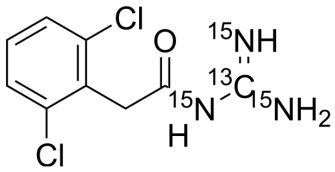
Guanfacine-$^{13}C,^{15}N_3$

Cat. No.:	HY-17416AS
CAS No.:	1189924-28-4
Molecular Formula:	$C_8{}^{13}CH_9Cl_2{}^{15}N_3O$
Molecular Weight:	250.07
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	Guanfacine-$^{13}C,^{15}N_3$ is the ^{13}C and ^{15}N labeled Guanfacine[1]. Guanfacine is an orally active noradrenergic α2A agonist and has high selective for the α2A receptor subtype. Guanfacine has effects in producing hypotension and sedation. Guanfacine can be used for the research of a variety of prefrontal cortex (PFC) cognitive disorders, including tourette's syndrome and attention deficit hyperactivity disorder (ADHD)[2][3][4].
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]. Amy F T Arnsten, et al. Guanfacine for the treatment of cognitive disorders: a century of discoveries at Yale. Yale J Biol Med. 2012 Mar;85(1):45-58. Epub 2012 Mar 29.

[3]. P. A. Van Zwieten, et al. The pharmacology of centrally acting antihypertensive drugs. Br J Clin Pharmacol. 1983 15(Suppl 4): 455S–462S.

[4]. Min Wang, et al. Alpha2A-adrenoceptors strengthen working memory networks by inhibiting cAMP-HCN channel signaling in prefrontal cortex. Cell. 2007 Apr 20129(2):397-410.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA