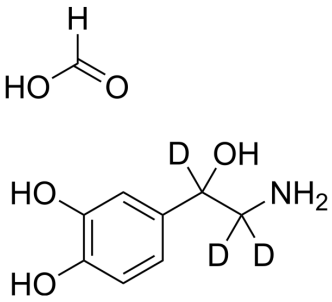
(Rac)-Norepinephrine-d_3 formate

Cat. No.:	HY-13715S
Molecular Formula:	$C_9H_{10}D_3NO_5$
Molecular Weight:	218.22
Target:	Adrenergic Receptor; Autophagy; Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Autophagy; Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	(Rac)-Norepinephrine-d_3 (formate) is deuterium labeled Norepinephrine. Norepinephrine (Levarterenol; L-Noradrenaline) is a potent adrenergic receptor (AR) agonist. Norepinephrine activates α1, α2, β1 receptors[1][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;53(2):211-216.

[2]. Brian P Ramos, et al. Adrenergic pharmacology and cognition: focus on the prefrontal cortex. Pharmacol Ther. 2007 Mar;113(3):523-36.

[3]. Littlejohn NK, et al. Suppression of Resting Metabolism by the Angiotensin AT2 Receptor. Cell Rep. 2016 Aug 9;16(6):1548-60.

[4]. MacGregor DA, et al. Relative efficacy and potency of beta-adrenoceptor agonists for generating cAMP in human lymphocytes. Chest. 1996 Jan;109(1):194-200.

[5]. Xinyu Xu, et al. Binding pathway determines norepinephrine selectivity for the human β 1 AR over β 2 AR. Cell Res. 2021 May;31(5):569-579.

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