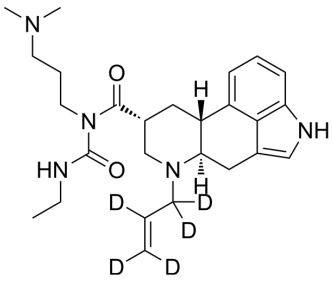
Cabergoline-d_5

Cat. No.:	HY-15296S
CAS No.:	1426173-20-7
Molecular Formula:	$C_{26}H_{32}D_5N_5O_2$
Molecular Weight:	456.64
Target:	Dopamine Receptor; Autophagy; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Autophagy; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Cabergoline-d_5 is the deuterium labeled Cabergoline. Cabergoline is an ergot derived-dopamine D2-like receptor agonist that has high affinity for D2, D3, and 5-HT2B receptors (Ki=0.7, 1.5, and 1.2, respectively)[1][2].	
IC_{50} & Target	D_3 Receptor	D_2 Receptor
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]. Odaka H, et al. Cabergoline, dopamine D2 receptor agonist, prevents neuronal cell death under oxidative stress via reducing excitotoxicity. PLoS One. 2014 Jun 10;9(6):e99271.

[3]. Jefferson F, et al. A dopamine receptor d2-type agonist attenuates the ability of stress to alter sleep in mice. Endocrinology. 2014 Nov;155(11):4411-21.

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