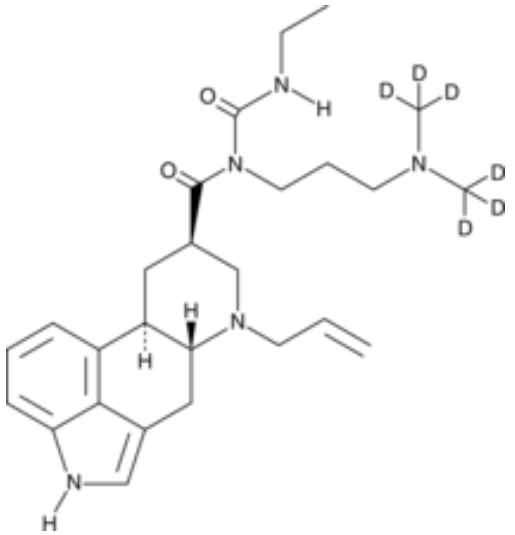
Product Data Sheet

Product Name: Cabergoline-d6
Cat. No.: GC47016

Chemical Properties

Cas. No.	2738376-76-4		
SMILES	O=C(NCC)N(CCCN(C([2H])([2H])[2H])C([2H])([2H])[2H])C([C@H]1CN(CC=C)[C@@]2([H])[C@](C3=C4C(C2)=CNC4=CC=C3)([H])C1)=O		
Formula	C26H31D6N5O2	M.Wt	457.6
Solubility	Acetonitrile: Soluble,DMSO: Soluble	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Cabergoline-d_6 is intended for use as an internal standard for the quantification of cabergoline by GC- or LC-MS. Cabergoline is a dopamine D_2 receptor agonist (K_i = 0.912 nM in rat striatal homogenates).[1] It is selective for dopamine D_2 over D_1 receptors (K_i = 6,935 nM). Cabergoline inhibits prolactin secretion in, and growth of, isolated rat pituitary tumor cells in a concentration-

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dependent manner, an effect that can be blocked by the dopamine D_2 receptor antagonist haloperidol .[2] Cabergoline reduces phosphorylation of mammalian target of rapamycin (mTOR) and induces the formation of LC3 puncta, a marker of autophagy, and apoptosis in MMQ rat pituitary cells.[3] *In vivo*, cabergoline (0.25 mg/kg) stimulates motor activity and decreases dyskinesias in a cynomolgus monkey model of Parkinson's disease induced by MPTP.[4] Formulations containing cabergoline have been used in the treatment of prolactinomas.

1.Miyagi, M., Itoh, F., Taya, F., et al.Dopamine receptor affinities in vitro and stereotypic activities in vivo of cabergoline in ratsBiol. Pharm. Bull.19(9)1210-1213(1996) 2.Eguchi, K., Kawamoto, K., Uozumi, T., et al.Effect of cabergoline, a dopamine agonist, on estrogen-induced rat pituitary tumors: In vitro culture studiesEndocr. J.42(3)413-420(1995) 3.Lin, S.J., Leng, Z.G., Guo, Y.H., et al.Suppression of mTOR pathway and induction of autophagy-dependent cell death by cabergolineOncotarget6(36)39329-39341(2015) 4.Grondin, R., Goulet, M.T., Di Paolo, T., et al.Cabergoline, a long-acting dopamine D2-like receptor agonist, produces a sustained antiparkinsonian effect with transient dyskinesias in parkinsonian drug-naive primatesBrain Res.735(2)298-306(1996)

Caution: Product has not been fully validated for medical applications. For research use only.
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