

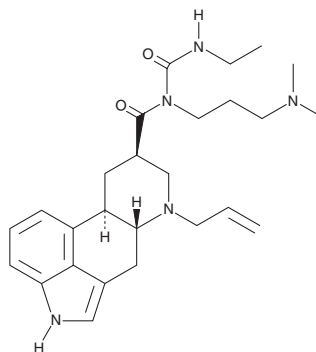
PRODUCT INFORMATION



Cabergoline

Item No. 23934

CAS Registry No.: 81409-90-7
Formal Name: N-[3-(dimethylamino)propyl]-N-[(ethylamino)carbonyl]-6-(2-propen-1-yl)-ergoline-8 β -carboxamide
Synonym: FCE 21336
MF: C₂₆H₃₇N₅O₂
FW: 451.6
Purity: \geq 98%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Cabergoline is supplied as a solid. A stock solution may be made by dissolving the cabergoline in the solvent of choice, which should be purged with an inert gas. Cabergoline is slightly soluble in chloroform and methanol.

Description

Cabergoline is a potent and selective dopamine D₂ receptor agonist (K_is = 0.912 and 6,935 nM for D₂ and D₁ receptors, respectively, in rat striatum) that inhibits the secretion of prolactin (PRL) and growth hormone.^{1,2} It inhibits PRL secretion in and growth of rat pituitary tumor cells in a concentration-dependent manner, an effect which can be reversed by the dopamine D₂ receptor antagonist haloperidol (Item No. 12014).² Cabergoline suppresses the mammalian target of rapamycin (mTOR) signaling pathway in a time-dependent manner and induces autophagy and cell death in MMQ and GH3 rat pituitary cells.³ *In vivo*, cabergoline (0.25 mg/kg) stimulates motor activity and decreases dyskinesias in a monkey model of Parkinson's disease induced by MPTP.⁴ Formulations containing cabergoline have been used to treat prolactinomas.

References

1. Miyagi, M., Itoh, F., Taya, F., *et al.* Dopamine receptor affinities *in vitro* and stereotypic activities *in vivo* of cabergoline in rats. *Biol. 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 studies. *Endocr. 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 cabergoline. *Oncotarget* **6(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 primates. *Brain Res.* **735(2)**, 298-306 (1996).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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