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ProductInformation

Metergoline

Product Number **M 3668**
Storage Temperature -20 °C

Product Description

Molecular Formula: $C_{25}H_{29}N_3O_2$
Molecular Weight: 403.5
CAS Number: 17692-51-2
Melting point: 146-149 °C[1]
Extinction coefficient: $E^{1\%}$ = 165 (291 nm)[1]

Metergoline is an ergot derivative or ergoline and is a dopamine agonist with actions and uses similar to that of bromocriptine. It is also a serotonin antagonist and has been used similarly to bromocriptine.[2]

Metergoline, a putative 5-HT1 receptor antagonist, did not block the effects of 5-hydroxytryptamine (5-HT) and was found to be acting as a full agonist at the 5-HT1D β receptor.[3]

To test the hypothesis that the suppression of fat selection and/or consumption by systemic serotonin agonists involves stimulation of central 5-HT receptors, a series of experiments was performed in nondeprived rats. In one experiment, third cerebroventricular (3V) infusion of the nonselective 5-HT antagonist metergoline prevented the reduction in fat, but not carbohydrate feeding caused by systemic dexfenfluramine. Furthermore, 3V metergoline alone increased fat intake.[4]

Hyperglycemia induced by 5-carboxamidotryptamine was prevented by pretreatment with metergoline.[5]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

Metergoline is soluble in chloroform (50 mg/ml). Metergoline is very soluble in pyridine and soluble in alcohol and acetone. It is practically insoluble in benzene, ether, and water.[1]

References

1. The Merck Index, 12th ed., Entry# 5999.
2. Martindale The Extra Pharmacopoeia, 30th ed., Reynolds, J. E. F., ed., The Pharmaceutical Press (London, England: 1993), p. 848.
3. Miller, K. J., et al., Agonist activity of sumatriptan and metergoline at the human 5-HT1D β receptor: further evidence for a role of the 5-HT1D receptor in the action of sumatriptan. Eur. J. Pharmacol., **227(1)**, 99-102 (1992).
4. Smith, B. K., et al., Activation of hypothalamic serotonin receptors reduced intake of dietary fat and protein but not carbohydrate. Am. J. Physiol., **277(3 Pt 2)**, R802-R811 (1999).
5. Yamada, J., et al., Effects of the non-selective 5-HT receptor agonist, 5-carboxamidotryptamine, on plasma glucose levels in rats. Eur. J. Pharmacol., **359(1)**, 81-86 (1998).

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