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ProductInformation

Xylazine

Product Number **X 1126**
Storage Temperature -0 °C

Product Description

Molecular Formula: $C_{12}H_{16}N_2S$
Molecular Weight: 220.3
CAS Number: 7361-61-7
Melting Point: 136-139 °C; 140-142 °C[1]

Xylazine is an α_2-adrenergic receptor agonist, sedative, and muscle relaxant. A ketamine hydrochloride and xylazine hydrochloride solution (Product No. K 113) has been used to produce rapid and reversible anesthesia in experimental animals.[2] Xylazine elicited a diuretic response in ketamine-anesthesized animals, probably through activation of complex peripheral and CNS α_2-adrenergic receptor systems.[3] Xylazine did not discriminate among the four known α_2
B-adrenergic receptor subtypes (A<B<C and D) in membranes of particular tissues.[4]

Precautions and Disclaimer

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

Preparation Instructions

Xylazine is soluble in methanol (50 mg/ml), yielding a clear, colorless solution. It is also soluble in dilute acid (HCl) and in chloroform. Xylazine is practically insoluble in water and in alkali solutions.

References

1. The Merck Index, 13th ed., Entry# 10135.
2. Soltesz, I., and Deschenes, M., Low- And High-Frequency Membrane Potential Oscillations During Theta Activity In CA1 And CA3 Pyramidal Neurons Of the Rat Hippocampus Under Ketamine-Xylazine Anesthesia. J. Neurophysiol. **70(1)**, 97-116 (1993).
3. Cabral, A. D., et al., Central Alpha2-receptor Mechanisms Contribute To Enhanced Renal Responses During Ketamine-Xylazine Anesthesia. Am. J. Physiol., **275(6 pt 2)**, R1867-R1874 (1998).
4. Schwartz, D. D., and Clark, T. P., Affinity Of Detomidine, Medetomidine And Xylazine For Alpha-2 Adrenergic Receptor Subtypes. J. Vet. Pharmacol. Ther., **21(2)**, 107-111 (1998).
5. Ware, T. D., and Paul, D., Cross-tolerance Between Analgesia Produced By Xylazine And Selective Opioid Receptor Subtype Treatments. Eur. J. Pharmacol., **389(2-3)**, 181-185 (2000).

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