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Tetracaine hydrochloride

ProductInformation

Product Number **T 7508**
Store at Room Temperature

Product Description

Molecular formula: $C_{15}H_{24}N_2O_2 \bullet HCl$
Molecular weight: 300.8
CAS number: 136-47-0
Melting point: 147-150 °C[1]
pK_a: 8.39[1]
Extinction coefficients:[1]
E^{mM} (water) = 14.108 (225 nm), 26.352 (310 nm)
E^{mM} (methanol) = 7.586 (226 nm), 29.512 (310 nm)

Tetracaine hydrochloride is an anesthetic. A study on its mechanism of action[2] and a comprehensive description[3] of this compound have been published. It blocks voltage-sensitive release of Ca^{2+} from sarcoplasmic reticulum. It is an inhibitor of cyclic nucleotide-gated channels.[4]

Precautions and Disclaimer

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

Preparation Instructions

Tetracaine hydrochloride is soluble in water (50mg/ml),yielding a clear,colorless solution. It is also soluble in 40 parts alcohol and 30 parts chloroform. It is practically insoluble in ether, benzene, or acetone.[1]

Storage/Stability

Aqueous solutions of tetracaine hydrochloride are stable and can be sterilized by brief boiling.[1] Solutions are incompatible with alkalis. Aqueous solutions should be discarded if they contain crystals or are discolored or cloudy.[5]

References

1. The Merck Index, 12th ed., Entry# 9330.
2. Leung, Y. W., and Rawal, B. D., Mechanism of action of tetracaine hydrochloride against *Pseudomonas aeruginosa*. J. Infect. Dis., **136(5)**, 679-683 (1977).
3. Riaz, M., in Analytical Profiles of Drug Substances, Vol. 18, Florey, K., ed., Academic Press (New York, NY: 1989), p. 379-411.
4. www.muhealth.org/~research/srd2001/2001Hanson.PDF
5. Martindale The Extra Pharmacopoeia, 31st ed., Reynolds, J. E. F., ed., Royal Pharmaceutical Society (London, England: 1996), p. 1323.

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