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ProductInformation

Terazosin hydrochloride

Product Number **T 4680**
Storage Temperature -0 °C

Product Description

Molecular Formula: $C_{19}H_{25}N_5O_4$ • HCl
Molecular Weight: 423.9
CAS Number: 63590-64-7
Melting Point: 278-279 °C[1]
Synonyms: 1-(4-amino-6,7-dimethoxy-2-quinazolinyl)-4-[(tetrahydro-2-furanyl)carbonyl]piperazine hydrochloride; 2-[(4-tetrahydro-2-furoyl)-1-piperazinyl]-4-amino-6,7-dimethoxyquinazoline hydrochloride

Terazosin is an α_1-receptor blocker that is structurally very similar to prazosin, differing in that terazosin contains a tetrahydrofuran unit at the amide linkage whereas prazosin contains a furan unit. The duration of action of terazosin is extended relative to that of prazosin.[1,2] A review of the pharmacodynamic and pharmacokinetic properties of terazosin has been published.[3]

Terazosin (2 μM) has been shown to abolish the norepinephrine response that leads to enhanced c-*myc*-encoded mRNA levels in cultured cardiac myocytes.[4] Terazosin has been used to probe apoptosis (15 μM) and the rate of DNA synthesis (1-100 μM) in cultured human prostate cancer cells.[5] It has also been utilized to modulate the effects of brain epinephrine in the regulation of motor activity and movement in mice.[6]

Assays for the detection of terazosin in plasma by HPLC and by HPLC/ESI-MS have been reported.[7-9]

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in methanol (20 mg/ml), with heat as needed, yielding a clear, colorless solution.

References

1. The Merck Index, 12th ed., Entry# 9297.
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3. Wilde, M. I., et al., Terazosin. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic potential in benign prostatic hyperplasia. Drugs Aging, **3(3)**, 258-277 (1993).
4. Starksen, N. F., et al., Cardiac myocyte hypertrophy is associated with c-myc protooncogene expression. Proc. Natl. Acad. Sci. USA, **83(21)**, 8348-8350 (1986).
5. Kyprianou, N., and Benning, C. M., Suppression of human prostate cancer cell growth by α1-adrenoceptor antagonists doxazosin and terazosin via induction of apoptosis. Cancer Res., **60(16)**, 4550-4555 (2000).
6. Stone, E. A., et al., Role of epinephrine stimulation of CNS α1-adrenoceptors in motor activity in mice. Synapse, **49(1)**, 67-76 (2003).
7. Cheah, P. Y., et al., Improved high-performance liquid chromatographic analysis of terazosin in human plasma. J. Chromatogr. B Biomed. Sci. Appl., **745(2)**, 439-443 (2000).
8. Sekhar, E. C., et al., Determination of terazosin in human plasma, using high-performance liquid chromatography with fluorescence detection. J. Chromatogr. B Biomed. Sci. Appl.,**710(1-2)**, 137-142 (1998).
9. Zavitsanos, A. P., and Alebic-Kolbah, T., Enantioselective determination of terazosin in human plasma by normal phase high-performance liquid chromatography-electrospray mass spectrometry. J. Chromatogr. A., **794(1-2)**, 45-56 (1998).

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