Product Information

Terazosin hydrochloride

≥98% (TLC), powder

T4680

Store at room temperature.

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

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 α1-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] A review of the pharmacodynamic and pharmacokinetic properties of terazosin has been published.[2] Terazosin (2 µM) has been shown to abolish the norepinephrine response that leads to enhanced c-myc-encoded mRNA levels in cultured cardiac myocytes.[3] Terazosin has been used to probe apoptosis (15 µM) and the rate of DNA synthesis (1-100 µM) in cultured human prostate cancer cells.[4] It has also been utilized to modulate the effects of brain epinephrine in the regulation of motor activity and movement in mice.[5] Assays for the detection of terazosin in plasma by HPLC and by HPLC/ESI-MS have been reported.[6-8]

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. Martindale The Extra Pharmacopoeia, 31st ed., Reynolds, J. E. F., ed., Royal Pharmaceutical Society (London, UK: 1996), p. 952.
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3. 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).
4. 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).
5. Stone, E. A., et al., Role of epinephrine stimulation of CNS α1-adrenoceptors in motor activity in mice. Synapse, 49(1), 67-76 (2003).
6. 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).
7. 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).
8. 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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