

Product Data Sheet

Doxazosin

Cat. No.: HY-B0098

CAS No.: 74191-85-8Molecular Formula: $C_{23}H_{25}N_5O_5$ Molecular Weight: 451.48

Target: Adrenergic Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Doxazosin (UK 33274) is a quinazoline-derivative that selectively antagonizes postsynaptic $\alpha 1$ -adrenergic receptors.
IC ₅₀ & Target	$lpha$ 1-adrenergic receptors $^{[1]}$
In Vitro	Doxazosin(UK 33274) is a long-lasting inhibitor of $\alpha 1$ -adrenoceptors that is widely used to treat benign prostatic hyperplasia and lower urinary tract symptoms ^[1] . doxazosin may have a direct inhibitory effect on cholesterol synthesis independent of the LDL receptor. The inhibition of cholesterol synthesis by doxazosin may cause cells to compensate by upregulating the LDL receptor, thereby increasing the importation of lipoprotein cholesterol and reducing LDL cholesterol in the medium ^[2] . Doxazosin monotherapy was effective in eight of 12 patients (66.7%), and combined therapy with a beta-blocker was effective in 11 of 12 patients (91.7%). The mean pulse rate remained constant throughout therapy. Adverse reactions were minor and transient and occurred in only three patients. Urinary and plasma catecholamine levels tended to decrease or remained unchanged during doxazosin therapy ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

• PLoS Negl Trop Dis. 2019 Aug 20;13(8):e0007681.

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REFERENCES

 $[1]. \ Sun, \ J.A., \ et \ al., \ Stereoselective \ binding \ of \ doxazosin \ enantiomers \ to \ plasma \ proteins \ from \ rats, \ dogs \ and \ humans \ in \ vitro. \ Acta \ Pharmacol \ Sin, \ 2013. \ 34(12): p. 1568-74.$

[2]. D'Eletto, R.D. and N.B. Javitt, Effect of doxazosin on cholesterol synthesis in cell culture. J Cardiovasc Pharmacol, 1989. 13 Suppl 2: p. S1-4; discussion S4.

[3]. Miura, Y. and K. Yoshinaga, Doxazosin: a newly developed, selective alpha 1-inhibitor in the management of patients with pheochromocytoma. Am Heart J, 1988. 116(6 Pt 2): p. 1785-9.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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