Product Data Sheet

Product Name: Doxazosin
Cat. No.: GC13447

Chemical Properties

Cas. No.	74191-85-8		
Chemical Name	[4-(4-amino-6,7-dimethoxyquinazolin-2-yl)piperazin-1-yl]-(2,3-dihydro-1,4-benzodioxin-3-yl)methanone		
SMILES	COC1=C(C=C2C(=C1)C(=NC(=N2)N3CCN(CC3)C(=O)C4COC5=CC=CC=C5O4)N)OC		
Formula	$C_{23}H_{25}N_5O_5$	M.Wt	451.48
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Doxazosin		

Background

Doxazosin (UK 33274) is a quinazoline-derivative that selectively antagonizes postsynaptic α1-adrenergic receptors.

Doxazosin(UK 33274) is a long-lasting inhibitor of α1-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].

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.

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[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.

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