Doxazosin mesylate

Cat. No.: HY-B0098A

CAS No.: 77883-43-3

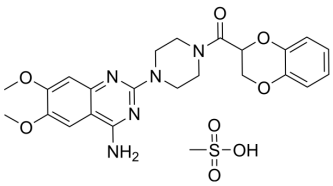
Molecular Formula: $C_{24}H_{29}N_5O_8S$

Molecular Weight: 547.58

Target: Adrenergic Receptor; Autophagy; Mitophagy

Pathway: GPCR/G Protein; Neuronal Signaling; Autophagy

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (60.87 mM; Need ultrasonic)
H_2O : 1 mg/mL (1.83 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.8262 mL	9.1311 mL	18.2622 mL
5 mM	0.3652 mL	1.8262 mL	3.6524 mL
10 mM	0.1826 mL	0.9131 mL	1.8262 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.57 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.57 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

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

IC_{50} & Target

α adrenergic receptor

In Vitro

UK 33274 mesylate is the mesylate salt form of doxazosin, which 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].

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.

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