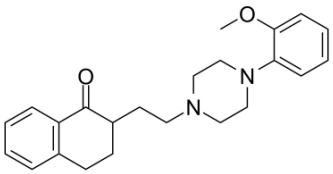
QF0301B

Cat. No.:	HY-101690
CAS No.:	149247-12-1
Molecular Formula:	$C_{23}H_{28}N_2O_2$
Molecular Weight:	364.48
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	QF0301B is an α1 adrenergic receptor antagonist and a low α2 adrenoceptor, 5-HT2A, and histamine H1 receptor blocker.
IC_{50} & Target	IC50: Adrenergic receptor[1]
In Vitro	In isolated rubbed rat aorta rings, QF0301B shows marked α1-adrenoceptor blocking activity, with a pA2 value of 9.00±0.12. QF0301B reverses and competitively antagonizes the inhibitory action produced by clonidine in electrically stimulated rat vas deferens and inhibits the force and rate of contraction in rat isolated atria (pA2=5.91±0.43), competitively antagonizes the contractile effect of 5-HT in rat aorta (pA2=6.75±0.06) and in rat stomach fundus (pA2=7.13±0.48) and the contractions induced by histamine in isolated guinea pig longitudinal ileal muscle (pA2=7.40±0.40). QF0301B shows noncompetitive low action in 5-HT3, muscarinic and nicotinic receptors, or as Ca^{2+} antagonist[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	QF0301B (0.1-0.2 mg/kg iv) can cause a pronounced and prolonged fall in mean arterial blood pressure accompanied by bradycardia. QF0301B does not significantly modify the cardiovascular effects of either 5-hydroxytryptamine (serotonin, 5-HT, 75 mg/kg iv) or the selective a2-adrenoceptor agonist B-HT 920 (0.2 mg/kg iv), but markedly inhibits the hypertensive effect of noradrenaline (5 mg/kg iv), a nonselective a-adrenergic receptor agonist[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [1]	Rats: Normotensive rats are anaesthetized. When blood pressure and heart rate have stabilized (30 min after cannulation), vehicle (1 ml/kg), QF0301B, or prazosin solution (0.1-0.2 mg/kg) is injected intravenously via the femoral vein, and the effects on blood pressure and heart rate are observed[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Orallo F, et al. In vivo and in vitro pharmacological studies of a new hypotensive compound (QF0301B) in rat: Comparison with prazosin, a known α1-adrenoceptor antagonist. Vascul Pharmacol. 2003 Feb;40(2):97-108.

Caution: Product has not been fully validated for medical applications. For research use only.

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