**QF0301B**

Cat. No.: HY-101690  
CAS No.: 149247-12-1  
Molecular Formula: C₂₃H₂₈N₂O₂  
Molecular Weight: 364.48  
Target: Adrenergic Receptor  
Pathway: GPCR/G Protein; Neuronal Signaling  
Storage: Please store the product under the recommended conditions in the COA.

**BIOLOGICAL ACTIVITY**

**Description**  
QF0301B is an α₁ adrenergic receptor antagonist and a low α₂ adrenoceptor, 5-HT2A, and histamine H1 receptor blocker.

**IC₅₀ & Target**  
IC₅₀: Adrenergic receptor

**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 Ca²⁺ antagonist.

**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 α₂-adrenoceptor agonist B-HT 920 (0.2 mg/kg iv), but markedly inhibits the hypertensive effect of noradrenaline (5 mg/kg iv), a nonselective α-adrenergic receptor agonist.

**PROTOCOL**

Animal Administration  
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.

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-