Midaglizole hydrochloride

**Cat. No.:** HY-U00165  
**CAS No.:** 79689-25-1  
**Molecular Formula:** C₁₆H₁₉Cl₂N₃  
**Molecular Weight:** 324.25  
**Target:** Adrenergic Receptor  
**Pathway:** GPCR/G Protein; Neuronal Signaling  
**Storage:** Please store the product under the recommended conditions in the COA.

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### BIOLOGICAL ACTIVITY

**Description**  
Midaglizole hydrochloride (DG5128) is a preferential α₂-adrenoceptor antagonist. Midaglizole hydrochloride (DG5128) exhibits 7.4 times higher affinity (pKᵢ=6.28) toward α₂-adrenoceptor than α₁-adrenoceptor.

**IC₅₀ & Target**  
pKᵢ: 6.28 (α₂-adrenoceptor)\(^{[1]}\)

**In Vitro**  
Midaglizole (DG-5128) at concentrations up to 10 μM inhibits \(^{[3]}\)H]clonidine binding more effectively than it did \(^{[3]}\)H]prazosin binding in rat cerebral cortex membranes. The mode of inhibition is homogeneous and consistent with the law of simple mass action\(^{[1]}\). The EC₅₀ values for stimulation of insulin release from rat islets and the MIN6 β-cell line induced by Midaglizole are 200 nM and 24 μM, respectively. The IC₅₀ values for Kᵦₜp current inhibition induced by Midaglizole are 3.8 μM and 4.4 μM for Kir6.2 and Kir6.2/SUR1, respectively\(^{[2]}\).

**In Vivo**  
Midaglizole (3 and 30 mg/kg, i.v.) increases blood pressure in pithed rats\(^{[3]}\).

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### PROTOCOL

**Animal Administration**\(^{[3]}\)  
Rats\(^{[3]}\)  
Male Wistar rats (290-450 g) are anesthetized with pentobarbital sodium (35 mg/kg, i.p.) and artificially ventilated with room air. Diastolic blood pressure before the administration of the Midaglizole (Midaglizole) is about 35 mmHg. Midaglizole at doses of 3 and 30 mg/kg produces an increase in blood pressure by 27 and 64 mmHg, respectively, at approximately 1 min after the administration.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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### REFERENCES
