

## Midaglizole hydrochloride

## Chemical Properties

CAS No.:	79689-25-1
Formula:	C <sub>16</sub> H <sub>19</sub> ClN <sub>3</sub>
Molecular Weight:	324.25
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

## Biological Description

Description	Midaglizole hydrochloride (DG5128) is a preferred $\alpha_2$ -adrenoceptor antagonist. Midazolazole hydrochloride (DG5128) has an affinity for $\alpha_2$ -adrenoceptor ( $pK_i = 6.28$ ) 7.4 times higher than that of $\alpha_1$ -adrenoceptor.
Targets(IC <sub>50</sub> )	$\alpha_2$ -adrenoceptor: 6.28( $pK_i$ )
In vitro	The inhibitory effect of midazolam (DG-5128) at a concentration of up to 10 $\mu$ M in the cerebral cerebral membrane of [3H] clonidine is more effective than that of [3H] prazosin. The suppression method is uniform and conforms to the simple law of mass action. The EC <sub>50</sub> values of midazolazole-induced insulin release in rat pancreatic islets and MIN6 $\beta$ cell lines were 200 nM and 24 $\mu$ M, respectively. The IC <sub>50</sub> values of midazolam for Kir6.2 and Kir6.2/SUR1 induced KATP current were 3.8 $\mu$ M and 4.4 $\mu$ M, respectively.
In vivo	Midaglizole (3 and 30 mg/kg, i.v.) increases blood pressure in pithed rats.

## Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.084 mL	15.42 mL	30.84 mL
5 mM	0.617 mL	3.084 mL	6.168 mL
10 mM	0.308 mL	1.542 mL	3.084 mL
50 mM	0.062 mL	0.308 mL	0.617 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Yamanaka K, et al. The selectivity of DG-5128 as an alpha 2-adrenoceptor antagonist. Eur J Pharmacol. 1984 Nov 27;106(3):625-8.
2. Proks P, et al. Inhibition of recombinant K(ATP) channels by the antidiabetic agents midaglizole, LY397364 and LY389382. Eur J Pharmacol. 2002 Sep 27;452(1):11-9.
3. Hirohashi M, et al. Intrinsic pressor activity of midaglizole, an alpha-2 adrenoceptor antagonist, in pithed rats. Jpn J Pharmacol. 1990 Aug;53(4):519-20.

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Tel:781-999-4286

E-mail:[info@targetmol.com](mailto:info@targetmol.com)

Address:36 Washington Street,Wellesley Hills,MA 02481