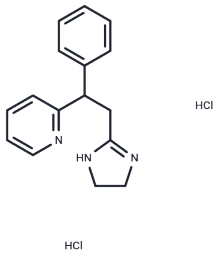
Data Sheet (Cat.No.T11015)

TargetMol

Midaglizole hydrochloride

Chemical Properties



CAS No. :	79689-25-1
Formula:	C16H19Cl2N3
Molecular Weight:	324.25
Storage:	Pure form: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	Midaglizole hydrochloride ((±)-DG5128) (DG5128) is a preferred α2-adrenoceptor antagonist. Midazolazole hydrochloride (DG5128) has an affinity for α2-adrenoceptor (pKi = 6.28) 7.4 times higher than that of α1-adrenoceptor.
Targets(IC50)	Adrenergic Receptor
In vitro	The inhibitory effect of midazolam (DG-5128) at a concentration of up to 10 μM 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 EC50 values of midazolazole-induced insulin release in rat pancreatic islets and MIN6β cell lines were 200 nM and 24 μM, respectively. The IC50 values of midazolam for Kir6.2 and Kir6.2/SUR1 induced KATP current were 3.8 μM and 4.4 uM, respectively.
In vivo	Midaglizole (3 and 30 mg/kg, i.v.) elevates blood pressure in pithed rats[1].

Solubility Information

Solubility	DMSO: 45 mg/mL (138.78 mM),Sonication and heating to 60℃ are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.084 mL	15.4202 mL	30.8404 mL
5 mM	0.6168 mL	3.084 mL	6.1681 mL
10 mM	0.3084 mL	1.542 mL	3.084 mL
50 mM	0.0617 mL	0.3084 mL	0.6168 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.
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.
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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