Imidafenacin

Cat. No.: HY-B0662

CAS No.: 170105-16-5

Molecular Formula: $C_{20}H_{21}N_3O$

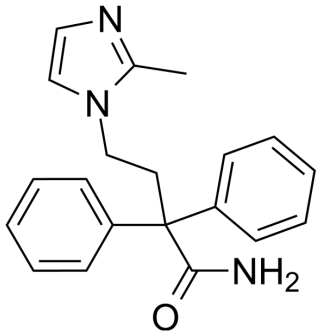
Molecular Weight: 319.4

Target: mAChR

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 31.25 mg/mL (97.84 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1309 mL	15.6544 mL	31.3087 mL
	5 mM	0.6262 mL	3.1309 mL	6.2617 mL
	10 mM	0.3131 mL	1.5654 mL	3.1309 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (6.51 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.51 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.51 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Imidafenacin (KRP-197; ONO-8025) is a potent and selective inhibitor of M3 receptors.

IC_{50} & Target

mAChR3

REFERENCES

[1]. Miyachi H, et al. Synthesis and antimuscarinic activity of a series of 4-(1-Imidazolyl)-2,2-diphenylbutyramides: discovery of potent and subtype-selective antimuscarinic agents. Bioorg Med Chem. 1999 Jun;7(6):1151-61.

[2]. Yamazaki T, et al. Imidafenacin has no influence on learning in nucleus basalis of Meynert-lesioned rats. Naunyn Schmiedebergs Arch Pharmacol. 2013 Dec;386(12):1095-102.

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