Saredutant

Cat. No.: HY-106910

CAS No.: 142001-63-6

Molecular Formula: $C_{31}H_{35}Cl_2N_3O_2$

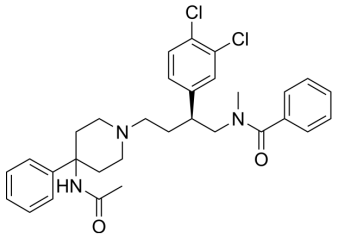
Molecular Weight: 552.53

Target: Neurokinin Receptor

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 : 250 mg/mL (452.46 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.8099 mL	9.0493 mL	18.0986 mL
	5 mM	0.3620 mL	1.8099 mL	3.6197 mL
	10 mM	0.1810 mL	0.9049 mL	1.8099 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 (3.76 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (3.76 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.76 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Saredutant is a selective NK2 receptor antagonist.

IC_{50} & Target

NK2

In Vivo

Saredutant, an NK2 receptor antagonist, has both antidepressant-like effects and synergizes with desipramine in an animal model of depression. Saredutant has dose-dependent effects on swim test immobility, with the low dose of 1 mg/kg having no effect and the doses of 3 and 10 mg/kg significantly reducing immobility[1].

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

PROTOCOL

Animal Administration [1]

Rats[1]

In the first experiment the dose-related effects of Saredutant are investigated. The Flinders Sensitive Line (FSL) rats (n=8) are treated with one of the following: vehicle (carboxymethylcellulose-CMC) or 1, 3, or 10 mg/kg Saredutant, or 5 mg/kg Desipramine as a positive control. Saredutant is injected at 1 mL/kg. The Flinders Resistant Line (FRL) rats are given CMC or 3 mg/kg Saredutant. All injections are i.p. and are given for 14 consecutive days. Approximately 22 h after the last injections the rats are placed in the social interaction chamber with similarly treated rats for a 5-min recording. Then about 2 h later the rats are individually tested in the forced swim test for a single 5-min session[1].

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

CUSTOMER VALIDATION

- Respir Physiol Neurobiol. 2022 Jul 26;103952.
- Authorea. 2023 Aug 14.

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REFERENCES

[1]. Overstreet DH, et al. Saredutant, an NK2 receptor antagonist, has both antidepressant-like effects and synergizes with Desipramine in an animal model of depression. Pharmacol Biochem Behav. 2010 Aug;96(2):206-10.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA