Data Sheet (Cat.No.T15634)



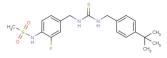
JYL 1421

Chemical Properties

CAS No.: 401907-26-4
Formula: C20H26FN3O2S2

Molecular Weight: 423.57
Appearance: N/A

Storage: 0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	JYL 1421 is an antagonist of TRPV1 receptor (IC50: 8 nM).		
Targets(IC ₅₀)	TRPV1 receptor: 8 nM		
In vitro	The IC50 value is 8 nM for JYL 1421. The effect of capsazepine is markedly smaller, it causes 41.7% inhibition in 1 μ M concentration, but this inhibitory effect does not enhance further in 10 μ M and does not reach 50%. Incubation with JYL 1421 for 5 min concentration-dependently inhibits the capsaicin (330 nM)-evoked Ca2+ accumulation. The inhibitory effect of the lowest concentration (5 nM) of JYL 1421 reaches the level of significance and 1 μ M almost abolishes the response, only 3.1±0.65% of the first capsaicin-induced Ca2+ influx could be observed.		
In vivo	JYL 1421 dose-dependently inhibits the capsaicin-induced fall in blood pressure as shown by the need for higher capsaicin doses to elicit the reflex hypotension after JYL 1421 administration than before treatment. Both applied doses of JYL 1421 (0.4 and 1.6 mg/kg) fail to evoke hypotension. Pretreating the rats with JYL 1421 (0.4 or 1 mg/kg; i.p.) does not influence significantly the wiping behavior, but 2-5 mg/kg dose-dependently reduces the number of wiping movements (ID50: 4.6 mg/kg). The mean arterial pressure of untreated rats is 109.9±4.2 Hgmm (n=6). One and 2 µg/kg capsaicin i.v. injection evokes a transient drop of blood pressure by 47.4±4.7 and 59.6±4.2 Hgmm (n=6), respectively. Capsazepine fails to induce a significant inhibition of the capsaicinevoked hypotension up to a dose of 2 mg/kg.		

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	2.361 mL	11.804 mL	23.609 mL
5 mM	0.472 mL	2.361 mL	4.722 mL
10 mM	0.236 mL	1.18 mL	2.361 mL
50 mM	0.047 mL	0.236 mL	0.472 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.

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Reference

1. Jakab B, et al. Pharmacological characterization of the TRPV1 receptor antagonist JYL1421 (SC0030) in vitro and in vivo in the rat. Eur J Pharmacol. 2005 Jul 4;517(1-2):35-44.

Inhibitors · Natural Compounds · Compound Libraries

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