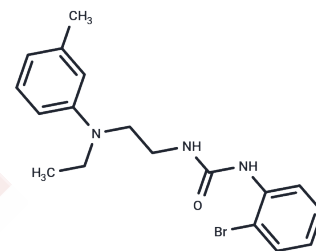


SB 452533

Chemical Properties

CAS No. : 459429-39-1
 Formula: C₁₈H₂₂BrN₃O
 Molecular Weight: 376.29
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	SB 452533 is an antagonist of the vanilloid receptor 1 (pK _b : 7.8).
Targets(IC ₅₀)	TRP/TRPV Channel
In vitro	SB 452533 significantly reduced Capsaicin-induced phosphorylation of AMPK and CAMKK2[1].
In vivo	Small dose Cap significantly reduced bleomycin-induced pulmonary fibrosis in mice and obviously reversed alveolar epithelial cells epithelial-mesenchymal transition (EMT) (the expression of E-cadherin and ZO-1 were increased (P < 0.05 or P < 0.01) and the expression of α-SMA and Vimentin were decreased (P < 0.05 or P < 0.01) after drugs treatment for 21 day, concomitantly with the increase the expressions of TRPV1 and CGRP (P < 0.05 or P < 0.01), and inhibiting ERK1/2 phosphorylation and eIF3a expression (P < 0.05 or P < 0.01). These effects of small dose Cap were abolished in the presence of TRPV1 receptor antagonist SB 452533[2].

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble) DMSO: 60 mg/mL (159.45 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.32 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6575 mL	13.2876 mL	26.5752 mL
5 mM	0.5315 mL	2.6575 mL	5.315 mL
10 mM	0.2658 mL	1.3288 mL	2.6575 mL
50 mM	0.0532 mL	0.2658 mL	0.5315 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

Parisa Vahidi Ferdowsi, et al. TRPV1 Activation by Capsaicin Mediates Glucose Oxidation and ATP Production Independent of Insulin Signalling in Mouse Skeletal Muscle Cells. *Cells*. 2021 Jun 21;10(6):1560.

Lin Ming Lu, et al. Effect of small dose capsaicin for treatment of pulmonary fibrosis in mice and its mechanism. *Zhongguo Ying Yong Sheng Li Xue Za Zhi*. 2020 May;36(3):216-222.

Harshad K Rami, et al. Discovery of small molecule antagonists of TRPV1. *Bioorg Med Chem Lett*. 2004 Jul 16;14(14):3631-4.

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