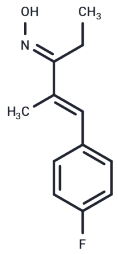
# Data Sheet (Cat.No.T7205)

TargetMol

A-967079

## Chemical Properties



CAS No. : 1170613-55-4

Formula: C12H14FNO

Molecular Weight: 207.24

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

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| Description | A 967079 is a potent, selective, and bioavailable inhibitor of the TRPA1 channel, with IC50 values of 67 and 289 nM for the human and rat isoforms, respectively. |
| Targets(IC50) | TRP/TRPV Channel |
| In vivo | Systemic injection of A 967079 (30 micromol/kg) decreased the responses of wide dynamic range (WDR), and nociceptive specific (NS) neurons following noxious pinch stimulation of the ipsilateral hind paw in uninjured and CFA-inflamed rats. Similarly, A-967079 reduced the responses of WDR neurons to high-intensity mechanical stimulation (300 g von Frey hair) of the knee joint in both OA and OA-sham rats. WDR neuronal responses to low-intensity mechanical stimulation (10 g von Frey hair) were also reduced by A-967079 administration to CFA-inflamed rats, but no effect was observed in uninjured rats. Additionally, the spontaneous activity of WDR neurons was decreased after A-967079 injection in CFA-inflamed rats but was unaltered in uninjured, OA, and OA-sham animals[1]. |
| Animal Research | Separated by 5 min each, to specific stimulation of the neuronal RF were recorded. Spontaneous and evoked neuronal activity was then measured 5, 15, 25, and 35 min after systemic injection of A-967079 (30 μmol/kg) or vehicle (polyethylene glycol). The intravenous injection of A-967079 or vehicle was completed over a 6-7 min period. The i. v. dose of A-967079 was selected based on extrapolated plasma levels that were effective in behavioral studies . Except for 2 experiments in which two easily distinguished neurons were simultaneously recorded on one electrode, only one neuron was studied per rat. Since only one vehicle was used in these experiments, vehicle data was combined when a clear "no effect' was observed in at least 2-3 animals from a particular subset of groups (OA and sham OA)[1]. |

## Solubility Information

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| Solubility | DMSO: 125 mg/mL (603.17 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (19.3 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one.* |

| | |
|---|---|
| In vivo Formulation | *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.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 4.8253 mL | 24.1266 mL | 48.2532 mL |
| 5 mM | 0.9651 mL | 4.8253 mL | 9.6506 mL |
| 10 mM | 0.4825 mL | 2.4127 mL | 4.8253 mL |
| 50 mM | 0.0965 mL | 0.4825 mL | 0.9651 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

McGaraughty S, Chu KL, Perner RJ,et al.TRPA1 modulation of spontaneous and mechanically evoked firing of spinal neurons in uninjured, osteoarthritic, and inflamed rats[J].Mol Pain. 2010 Mar 5;6:14.
Chen J , Joshi S K , Didomenico S , et al. Selective blocade of TRPA1 channel attenuates pathological pain without altering noxious cold sensation or body temperature regulation[J]. Pain, 2011, 152(5):1165-1172.