CIM0216

Cat. No.: HY-110220

CAS No.: 1031496-06-6

Molecular Formula: $C_{21}H_{21}N_3O_2$

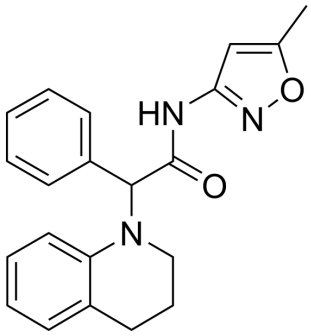
Molecular Weight: 347.41

Target: TRP Channel

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 35 mg/mL (100.75 mM; Need ultrasonic and warming)
Ethanol : 17 mg/mL (48.93 mM; Need ultrasonic and warming)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.8784 mL	14.3922 mL	28.7844 mL
5 mM	0.5757 mL	2.8784 mL	5.7569 mL
10 mM	0.2878 mL	1.4392 mL	2.8784 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 (5.99 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CIM0216, a synthetic TRPM3 ligand, acts as a potent and selective agonist of TRPM3. CIM0216 exhibits selectivity for TRPM3 over TRPM1, TRPM2 and TRPM4-8. CIM0216 acts in a TRPM3-dependent manner to induce pain and evoke neuropeptide release from sensory nerve terminals in vitro. CIM0216 is a powerful tool for studies of the physiological functions of TRPM3, and can be used for neurogenic inflammation research[1].

IC_{50} & Target

TRPM3

In Vitro

CIM0216 elicits a dose-dependent Ca^{2+} response [pEC_{50}=0.77±0.1 μM] in HEK-TRPM3 cells, which is not observed in nontransfected HEK293 cells. CIM0216 induces a robust increase in intracellular Ca^{2+} concentration (1,145±26 nM) in single-cell FURA2-ratiometric Ca^{2+} imaging in HEK-TRPM3 cells. These responses are not observed in nontransfected HEK cells or in the absence of extracellular Ca^{2+}[1].

CIM0216 (10 μM) has no stimulating/blocking effect on TRPM1, TRPM4, TRPM6, or TRPM7 currents; however, a small blocking effect of CIM0216 is observed after activation of TRPM2 (16.6% block) and TRPM5 (33.5% block). CIM0216 also has no detectable effect on human TRPV1 and TRPM8 channel activation[1].

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

REFERENCES

[1]. Katharina Held, et al. Activation of TRPM3 by a potent synthetic ligand reveals a role in peptide release. Proc Natl Acad Sci U S A. 2015 Mar 17;112(11):E1363-72.

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