GW842166X

Cat. No.: HY-14167

CAS No.: 666260-75-9

Molecular Formula: $C_{18}H_{17}Cl_2F_3N_4O_2$

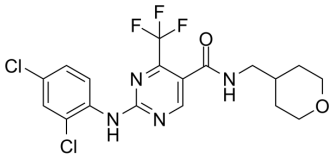
Molecular Weight: 449.25

Target: Cannabinoid 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 : ≥ 83.3 mg/mL (185.42 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.2259 mL	11.1297 mL	22.2593 mL
5 mM	0.4452 mL	2.2259 mL	4.4519 mL
10 mM	0.2226 mL	1.1130 mL	2.2259 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: 2.5 mg/mL (5.56 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.56 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.56 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GW842166X is a potent and selective cannabinoid receptor 2 (CB2) agonist with IC_{50} values of 63 and 91 nM for human and rat CB2, respectively.

IC_{50} & Target

IC50: 63 nM (human CB2), 91 nM (rat CB2)[1]

In Vitro

GW842166X shows similar potency and efficacy for rat and human recombinant CB2 receptors. It has no significant agonist

	activity at concentrations up to 30 μM in human and rat CB1 recombinant assays[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	GW842166X has an oral ED_{50} of 0.1 mg/kg in the rat FCA model of inflammatory pain and shows full reversal of hyperalgesia at 0.3 mg/kg. The blood concentrations of GW842166X in experiments are 30 nM (0.03 mg/kg), 130 nM (0.1 mg/kg), and 370 nM (0.3 mg/ kg) 1 h after dosing. After dosing for 4 days in the FCA model, no statistical difference in antihyperalgesic response is observed on day 4 relative to day 1, indicating that tolerance does not occur[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Giblin GM, et al. Discovery of 2-[(2,4-dichlorophenyl)amino]-N-[(tetrahydro- 2H-pyran-4-yl)methyl]-4-(trifluoromethyl)- 5-pyrimidinecarboxamide, a selective CB2 receptor agonist for the treatment of inflammatory pain. J Med Chem. 2007 May 31;50(11):2597-6

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