FPR2 agonist 2

Cat. No.: HY-144604

CAS No.: 2829263-20-7

Molecular Formula: $C_{25}H_{20}F_2N_4O_2$

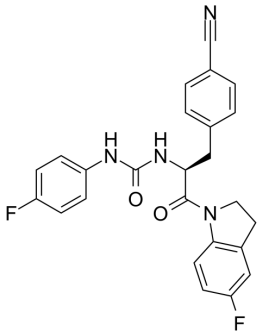
Molecular Weight: 446.45

Target: Others

Pathway: Others

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 : 50 mg/mL (111.99 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2399 mL	11.1995 mL	22.3989 mL
	5 mM	0.4480 mL	2.2399 mL	4.4798 mL
	10 mM	0.2240 mL	1.1199 mL	2.2399 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

FPR2 agonist 2 is a potent and permeates the blood−brain barrier FPR2 agonist with an EC_{50} of 0.13 μM, 1.1 μM for FPR2 and FPR1, respectively. FPR2 agonist 2 inhibits the production of pro-inflammatory cytokines, counterbalances the changes in mitochondrial function, and inhibits caspase-3 activity[1].

IC_{50} & Target

EC_{50}: 0.13 μM (FPR2); 1.1 μM (FPR1)[1]

In Vitro

FPR2 agonist 2 (compound (S)-11l) (1-100 μM; 48 h) exhibits low cytotoxicity with an EC_{50} value of 20.8 μM in N9 cells[1].

FPR2 agonist 2 (FPR1/FPR2 HL60 cells) shows agonist activity with EC_{50}s of 0.13 μM, 1.1 μM (IC_{50}s of 0.085 μM, Not determined) for FPR2 and FPR1, respectively[1].

FPR2 agonist 2 (0.1 μM) effectively blocks LPS-induced cell death and NO production and effectively suppresses the effect of LPS stimulation[1].

FPR2 agonist 2 (0.1 μM) counterbalances the changes in mitochondrial function, and inhibits caspase-3 activity[1].

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

Cell Viability Assay[1]

Cell Line:	N9 cells
Concentration:	1-100 μM
Incubation Time:	48 h
Result:	Exhibited low cytotoxicity with an EC_{50} value of 20.8 μM in N9 cells.

In Vivo

FPR2 agonist 2 (1 mg/kg for i.v.; 10 mg/kg for i.p.) shows the ability to permeate the blood−brain barrier and to accumulate in the brain[1].

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

Animal Model:	25-30 g, male CD-1 mice[1]
Dosage:	
Administration:	1 mg/kg for i.v.; 10 mg/kg for i.p. (dissolved in 5% DMSO, 10% solutol HS 15, and 85% sterile water)
Result:	Showed the ability to permeate the blood−brain barrier and to accumulate in the brain.

REFERENCES

[1]. Mastromarino M, et al. Design, Synthesis, Biological Evaluation, and Computational Studies of Novel Ureidopropanamides as Formyl Peptide Receptor 2 (FPR2) Agonists to Target the Resolution of Inflammation in Central Nervous System Disorders. J Med Chem. 2022; 65(6):5004-5028.

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