Product Data Sheet

Product Name: FPR2 agonist 2
Cat. No.: GC69130

Chemical Properties

Cas. No.	2829263-20-7		
Formula	$C_{25}H_{20}F_2N_4O_2$	M.Wt	446.45
Solubility	DMSO : 50 mg/mL (111.99 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	FPR2 agonist 2		

Background

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].

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].

Cell Viability Assay[1]

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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.

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].

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.

[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.

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