FPR Agonist 43

Cat. No.: HY-19574

CAS No.: 903895-98-7

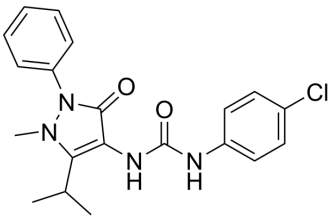
Molecular Formula: $C_{20}H_{21}ClN_4O_2$

Molecular Weight: 384.86

Target: Formyl Peptide Receptor (FPR)

Pathway: GPCR/G Protein

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 37.5 mg/mL (97.44 mM; Need ultrasonic)
H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5983 mL	12.9917 mL	25.9835 mL
5 mM	0.5197 mL	2.5983 mL	5.1967 mL
10 mM	0.2598 mL	1.2992 mL	2.5983 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (5.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

FPR Agonist 43 (compound 43) is a dual formyl peptide receptor 1 (FPR1) and formyl peptide receptor 2 (FPR2)/ALX agonist [1][2].

IC_{50} & Target

FPR1, FPR2/ALX[1]

In Vitro

FPR Agonist 43 (10^{-5}-10^{7} nM) is actively potent in the cAMP assay in FPR2/ALX over-expressing CHO cells[1].
FPR Agonist 43 is also active in the GTPγ binding assay (IC_{50}=207±51 nM)[1].
FPR1 is the preferred receptor for FPR Agonist 43 in in both human neutrophils and possibly also in mouse cells[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	Chinese hamster ovary (CHO) over-expressing human FPR2/ALX receptors

Concentration:	10^{-5}, 10^{-3}, 0.1, 10, 1000, 10^{5}, 10^{7} nM
Incubation Time:	
Result:	Actively potent in the cAMP assay in FPR2/ALX over-expressing CHO cells (IC_{50} =11.6±1.9 nM).

CUSTOMER VALIDATION

- Nat Commun. 2022 Feb 25;13(1):1054.
- Cancer Res. 2022 Aug 16;82(16):2887-2903.

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REFERENCES

[1]. Planagumà A, et al. Lack of activity of 15-epi-lipoxin A_4 on FPR2/ALX and CysLT1 receptors in interleukin-8-driven human neutrophil function. Clin Exp Immunol. 2013 Aug;173(2):298-309.

[2]. Forsman H, et al. What formyl peptide receptors, if any, are triggered by compound 43 and lipoxin A4? Scand J Immunol. 2011 Sep;74(3):227-234.

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