Data Sheet (Cat.No.T9645)

TargetMol

CU-115

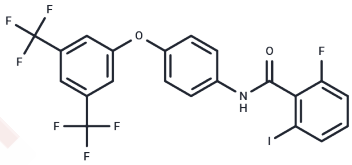
Chemical Properties

CAS No. : 2471982-20-2

Formula: C21H11F7INO2

Molecular Weight: 569.21

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	CU-115 is a selective and potent TLR8 antagonist with IC50 of 1.04 μM and =>50 μM for TLR8 and TLR7, respectively. CU-115 decreases production of TNF-α and IL-1β activated by R-848 in THP-1 cells.
Targets(IC50)	TLR
In vitro	CU-115 (1, 5, and 20 μM) inhibits TLR9 to 10-25% inhibition. CU-115 (5-20 μM) inhibits increases in the activity of type I IFN transcriptional induced by the ssRNA nucleic acid ligands 3p-hpRNA or G3-YSD. CU-115 (5-20 μM) abolishes the TNF-α production activated by R848 (1 μg/ml) and represses the expression of IL-1β in hTHP-1 cells. CU-115 does not modulate the NF-kB inhibition induced by Pam2CSK4, Pam3CSK4, LPS, R848, Poly(I:C), and Flic in HEK-293 TLR1/2, TLR2/6, TLR3, and TLR4 cells[1].

Solubility Information

Solubility	DMSO: 45 mg/mL (79.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (3.51 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7568 mL	8.7841 mL	17.5682 mL
5 mM	0.3514 mL	1.7568 mL	3.5136 mL
10 mM	0.1757 mL	0.8784 mL	1.7568 mL
50 mM	0.0351 mL	0.1757 mL	0.3514 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Rosaura Padilla-Salinas, et al. Discovery of Novel Small Molecule Dual Inhibitors Targeting Toll-Like Receptors 7 and 8. J Med Chem. 2019 Nov 27;62(22):10221-10244.