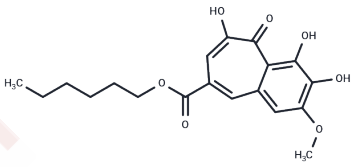
Data Sheet (Cat.No.T15020)

TargetMol

CU-CPT22

Chemical Properties



CAS No. : 1416324-85-0

Formula: C19H22O7

Molecular Weight: 362.37

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-CPT22 is the first probe for the complex between toll-like receptors TLR1 and TLR2. CU-CPT22 binds at the interface of TLR1 and TLR2 (IC50 = 0.58 μM). It competes with the synthetic triacylated lipoprotein (Pam3CSK4) binding to TLR1/2 (Ki: 0.41 μM).
Targets(IC50)	TLR
In vitro	A novel compound (CU-CPT22) that can compete with the synthetic triacylated lipoprotein (Pam3CSK4) binding to TLR1/2 with high inhibitory activity and specificity. CU-CPT22 is a toll-like inhibitor of receptor 1 and 2 (TLR1/2) (IC50: 0.58±0.09 μM).?CU-CPT22 is found to have no significant cytotoxicity at various concentrations up to 100 μM in RAW 264.7 cells.?It is showed that CU-CPT22 is able to compete with Pam3CSK4 for binding to TLR1/2 (Ki: 0.41±0.07 μM).?Which is consistent with its potency observed in the whole cell assay.?Increasing the concentration of CU-CPT22 to 6 μM decreases the anisotropy to background levels.?It is found that CU-CPT22 inhibits TLR1/2 signaling without affecting other TLRs, showing it is highly selective in intact cells.??The result shows that CU-CPT22 can inhibit about 60% of TNF-αand 95% of IL-1β at 8 μM[1].

Solubility Information

Solubility	DMSO: 125 mg/mL (344.95 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (11.04 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	2.7596 mL	13.7981 mL	27.5961 mL
5 mM	0.5519 mL	2.7596 mL	5.5192 mL
10 mM	0.276 mL	1.3798 mL	2.7596 mL
50 mM	0.0552 mL	0.276 mL	0.5519 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

Cheng K, et al. Discovery of small-molecule inhibitors of the TLR1/TLR2 complex. Angew Chem Int Ed Engl. 2012 Dec 3;51(49):12246-9.