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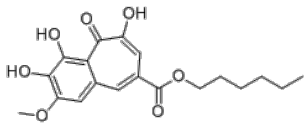
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	CU-CPT22
Cat. No.	:	PC-38135
CAS No.	:	1416324-85-0
Molecular Formula	:	$C_{19}H_{22}O_7$
Molecular Weight	:	362.378
Target	:	Toll-like Receptor (TLR)
Solubility	:	10 mM in DMSO



Biological Activity

CU-CPT22 is a specific small-molecule inhibitor of the **TLR1/TLR2** complex with IC50 of 0.58 uM (NO production in RAW 264.7 cells).
CU-CPT22 preferentially inhibits TLR2/1 signaling, without affecting a panel of homologous TLRs (TLR2/6, TLR3, TLR4, and TLR7).
CU-CPT22 competes with the synthetic triacylated lipoprotein (Pam3CSK4) binding to TLR1/2 with high inhibitory activity and specificity.
CU-CPT22 demonstrated minimal non-specific inhibition against a panel of 10 representative kinases (PDGFRB, MET, DDR2, SRC, MAPK1, PAK1, AKT1, PKC-γ, CAMK1, and PLK4).
CU-CPT22 also inhibits the downstream signaling transduction in cellular assays, inhibits TNF-α (60%) and IL-1β (95%) at 8 uM in the Pam3CSK4-activated RAW 264.7 cells.
CU-CPT22 reduced the nuclear translocation of NF-κB and secretion of TNF-α from cultured primary mouse microglia.
CU-CPT22 also inhibits the downstream signaling transduction in cellular assays, inhibits TNF-α (60%) and IL-1β (95%) at 8 uM in the Pam3CSK4-activated RAW 264.7 cells.

References

Cheng K, et al. ***Angew Chem Int Ed Engl.*** 2012 Dec 3;51(49):12246-9.

Daniele SG, et al. ***Sci Signal.*** 2015 May 12;8(376):ra45.

Bock S, et al. ***Pharmacol Res.*** 2016 Mar;105:44-53.

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