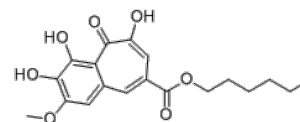


**Product Name** : CU-CPT22  
**Cat. No.** : PC-38135  
**CAS No.** : 1416324-85-0  
**Molecular Formula** : C<sub>19</sub>H<sub>22</sub>O<sub>7</sub>  
**Molecular Weight** : 362.378  
**Target** : Toll-like Receptor (TLR)  
**Solubility** : 10 mM in DMSO



## Biological Activity

CU-CPT22 is a specific small-molecule inhibitor of the **TLR1/TLR2** complex with IC<sub>50</sub> of 0.58 μM (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 μM 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 μM in the Pam3CSK4-activated RAW 264.7 cells.

## References

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

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

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

E-mail: tech@probechem.com