

Product Datasheet

CU-CPT-9a

Catalog No. **BP-01979** · CAS **2165340-32-7** · Form **free base** · Physical state **solid** · Color **light yellow to yellow** · Version **1.0**
· Revision **2026-09-09**

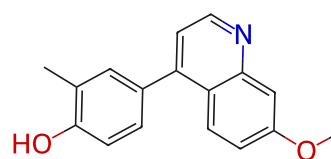
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Target Toll-like Receptor (TLR)	Research area Inflammation/Immunology
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Molecular formula **C₁₇H₁₅NO₂**

Molecular weight **265.3065**

STRUCTURE



DESCRIPTION

CU-CPT-9a is a specific TLR8 antagonist, with an IC₅₀ of 0.5 nM.

BIOLOGICAL ACTIVITY

In Vitro

CU-CPT-9a is a specific TLR8 antagonist, with an IC₅₀ of 0.5±0.1 nM. The elevation of the downstream protein levels induced by R848 can be reversed by CU-CPT-9a in a dose-dependent manner. By contrast, the expression of TRIF and IRF3 (cytoplasmic and nuclear) are only responsive to TLR4 and TLR3, independent of TLR8/37. The expression levels of TRIF and IRF3 do not show significant change in THP-1 cells upon treatment of R848, nor do they change with the treatment of CU-CPT-9a. CU-CPT8m and CU-CPT-9a both significantly suppress the TNF-α level in a dose-dependent manner, which is in agreement with previous reports of TLR8 involvement in these autoimmune diseases.

SOLUBILITY

Soluble in DMSO

REFERENCES

[1]. Zhang S, et al. Small-molecule inhibition of TLR8 through stabilization of its resting state. Nat Chem Biol. 2018 Jan;14(1):58-64.

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Lot CoA and SDS are separate documents.