

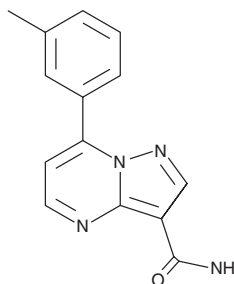
PRODUCT INFORMATION



CU-CPT8m

Item No. 25349

CAS Registry No.: 125079-83-6
Formal Name: 7-(3-methylphenyl)-pyrazolo[1,5-a]pyrimidine-3-carboxamide
MF: C₁₄H₁₂N₄O
FW: 252.3
Purity: ≥98%
UV/Vis.: λ_{max}: 233, 346 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CU-CPT8m is supplied as a crystalline solid. A stock solution may be made by dissolving the CU-CPT8m in the solvent of choice, which should be purged with an inert gas. CU-CPT8m is soluble in organic solvents such as chloroform, DMSO, and dimethyl formamide (DMF). The solubility of CU-CPT8m in chloroform is approximately 5 mg/ml and approximately 0.2 mg/ml in DMSO and DMF. CU-CPT8m is also slightly soluble in ethanol.

Description

CU-CPT8m is an antagonist of toll-like receptor 8 (TLR8; K_d = 220 nM; IC₅₀ = 67 nM in a reporter assay).¹ It is selective for TLR8 over a panel of all other human TLRs when used at a concentration of 1 μM. CU-CPT8m (1 μM) inhibits increases in TNF-α and IL-8 mRNA expression induced by the TLR8 agonist R-848 (Item No. 14806) in TLR8-overexpressing HEK-Blue cells. It also inhibits R-848-induced increases in TNF-α protein levels in differentiated THP-1 monocytes and human primary peripheral blood mononuclear cells (PBMCs) in a concentration-dependent manner. CU-CPT8m decreases TNF-α and IL-8 levels in synovial cells derived from patients with osteoarthritis and TNF-α levels in PBMCs derived from patients with rheumatoid arthritis.

Reference

1. Zhang, S., Hu, Z., Tanji, H., *et al.* Small-molecule inhibition of TLR8 through stabilization of its resting state. *Nat. Chem. Biol.* **14**(1), 58-64 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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