

## Catalog #10-3374 CU-CPT8m

CAS# 125079-83-6 7-(3-Methylphenyl)-pyrazolo[1,5-a]pyrimidine-3-carboxamide Lot # S104121

CU-CPT8m is a potent and selective antagonist of toll-like receptor 8 (TLR8) acting via stabilization of the TLR8 homodimer. It inhibits TNF $\alpha$  and IL-8 expression induced by the TLR8 agonist resiquimod at 1  $\mu$ M and suppresses TLR8-mediated proinflammatory signaling in various cell lines, human primary cells and patient specimens. It reverses phenotypes involved in TLR8-activating fibroblasts. CU-CPT8m promotes erythroid cell proliferation and differentiation.

- 1) Zhang et al. (2018), Small-molecule inhibition of TLR8 through stabilization of its resting state; Nat. Chem. Biol. 14 58
- 2) Kong et al. (2024), TLR8 aggravates skin inflammation and fibrosis by activating skin fibroblasts in systemic sclerosis; Rheumatology (Oxford) **63** 1710
- 3) Liang et al. (2024), Erythroid-intrinsic activation of TLR8 impairs erythropoiesis in inherited anemia; Nat. Commun. **15** 5678

## **PHYSICAL DATA**

Molecular Weight: 252.28

Molecular Formula: C<sub>14</sub>H<sub>12</sub>N<sub>4</sub>O

Purity: >98% (HPLC)

NMR: (Conforms)

Solubility: DMSO (20 mg/mL)

Physical Description: White solid

Storage and Stability: Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in

DMSO may be stored at -20°C for up to 2 months.

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