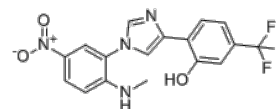


Product Name : SMU-Z1
Cat. No. : PC-49018
CAS No. : 2410782-66-8
Molecular Formula : C₁₇H₁₃F₃N₄O₃
Molecular Weight : 378.311
Target : Toll-like Receptor (TLR)
Solubility : 10 mM in DMSO



Biological Activity

SMU-Z1 is a potent, specific small molecule agonist of **TLR1/2**, specifically activates TLR2 through its association with TLR1, induces NF-κB activation in HEK-Blue hTLR2 cells with EC₅₀ of 4.88 nM.

SMU-Z1 specifically activates TLR1/2 but not TLR2/6 signaling.

SMU-Z1 (10-1,000 nM) stimulates a strong TNF-α and IL-1β production in a dose-response manner in both mouse cells and human PBMC cultures, significantly increases IL-6 mRNA level in human PBMC, upregulates IL-6 synthesis about 100 fold.

SMU-Z1 specifically simulates TLR1 and TLR2 through the NF-κB pathway to trigger the synthesis of proinflammatory cytokines, such as TNF-α, IL-1β, IL-6 and nitric oxide.

SMU-Z1 promotes splenocyte proliferation, up-regulates the expression of CD8+ T, NK and DC cells, which in turn resulted in antitumor immunity against leukemia in vivo.

SMU-Z1 can both enhance HIV-1 transcription and promote NK cell-mediated inhibition of HIV-1-infected autologous CD4+ T cells.

References

Cen X, et al. *Adv Sci (Weinh)*. 2019 Mar 27;6(10):1802042.

Duan S, et al. *J Virol*. 2021 Aug 10;95(17):e0081621.

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

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