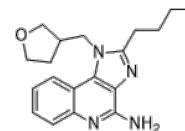


Product Name : SMU-L11
Cat. No. : PC-25430
CAS No. : 3029695-07-3
Molecular Formula : C₁₉H₂₄N₄O
Molecular Weight : 324.43
Target : Toll-like Receptor (TLR)
Solubility : 10 mM in DMSO



CAS: 3029695-07-3

Biological Activity

SMU-L11 is a potent, selective small-molecule TLR7 agonist with EC₅₀ of 24 nM (hTLR7).

SMU-L11 effectively promoted SEAP signals in HEK-Blue hTLR7 cells, also exhibited TLR8 activation with increasing dose (EC₅₀=4.5 μM).

SMU-L11 shows negligible activation of HEK-Blue hTLR2, hTLR3, or hTLR4.

SMU-L11 induced significant phosphorylation of IKK α/β, p65, p38, JNK, ERK1/2, and IRF7 in bone marrow-derived DCs (BMDCs).

SMU-L11 activated conventional TLR7 downstream signaling pathways via the MyD88 adaptor protein, including the NF-κB, MAPK, and IFN signaling pathways.

SMU-L11 induces cytokine secretion and gene expression in mouse and human cells.

SMU-L11 (0, 0.1, 1, 5, and 10 μM) promotes M1-like polarization of macrophages.

SMU-L11 induced strong antitumor response, especially by upregulating NK cells, macrophages, DCs, and cytotoxic CD8⁺ T lymphocytes, which in turn contributed to significant antitumor responses in B16-F10 melanoma model.

References

Ou J, et al. J Med Chem. 2024 Mar 14;67(5):3321-3338.

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

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