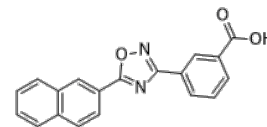


Product Name : JNU-0921
Cat. No. : PC-22968
CAS No. : 3079468-41-7
Molecular Formula : C₁₉H₁₂N₂O₃
Molecular Weight : 316.32
Target : Immune Checkpoints
Solubility : 10 mM in DMSO



Biological Activity

JNU-0921 is a specific, small molecule **CD137** (4-1BB/TNFRSF9) agonist with EC₅₀ of 64 nM in cell-based luciferase assays, activates both human and mouse CD137, directly binds the extracellular domain of CD137, induces CD137 oligomerization and activates CD137 signaling.

JNU-0921 treatment stimulated transcription levels of IFN-γ and Granzyme B (GZMB) in JC-luc cells.

JNU-0921 treatment promoted the proliferation of both CD8⁺ and CD4⁺ splenic T cells from WT mice in a similar manner to agonistic anti-CD137 antibody (aCD137), but not enhance proliferation of CD137 knockout (KO) T cells.

JNU-0921 treatment increased the levels of CD25 and CD69 in a CD137-dependent manner, up-regulated the expression of effector cytokines in both CD8⁺ and CD4⁺ T cells, including IL-2 and IFN-γ.

JNU-0921 promoted the proliferation of CD8⁺ T cells and CD4⁺ T cells in human peripheral blood cells.

JNU-0921 binding to CD137 led to recruitment of TRAF2 and TRAF3 to form signaling complex, activates the NF-κB signaling pathway.

JNU-0921 (50 mg/kg per day, gavage) effectively shrinks tumors and rewires tumor immune microenvironment in MC38 xenograft mouse model.

References

Lu Liu, et al. *Sci Adv.* 2024 Aug 23;10(34):eadp8647.

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

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