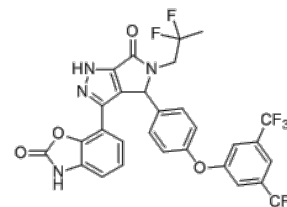


Product Name : DS55980254
Cat. No. : PC-49548
CAS No. : 2488609-41-0
Molecular Formula : C₂₉H₁₈F₈N₄O₄
Molecular Weight : 638.46
Target : Other Targets
Solubility : 10 mM in DMSO



Biological Activity

DS55980254 (DS 55980254) is potent, selective and orally active **PTDSS1 (phosphatidylserine synthetase 1)** inhibitor, suppresses phosphatidylserine (PS) production activity of PTDSS1 (IC₅₀=100 nM) in cell-free assays, but not that of PTDSS2. DS55980254 strongly suppressed the de novo PS synthesis in PTDSS2-KO HCT116 clone, whereas they weakly suppressed it in parental HCT116.

DS55980254 selectively suppressed the growth of PTDSS2-KO HCT116 in vitro.

DS55980254 (10-30 mg/kg, daily, p.o.) induced tumor regression in PTDSS2-KO HCT116 and PTDSS2-KO A375 subcutaneous xenograft models, without body weight loss and severe toxicity.

DS55980254 induced selective cell death in PTDSS2-deleted cancer cells, induced ER stress downstream of PS depletion in PTDSS2-deleted tumor cells.

DS55980254 suppressed the growth of tumor containing both PTDSS2 wild-type and knockout cells in immunocompetent mice, showing potency for overcoming tumor heterogeneity by modulating the tumor immune microenvironment.

References

Yohei Yoshihama, et al. *Cancer Res.* 2022 Nov 2;82(21):4031-4043.

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

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