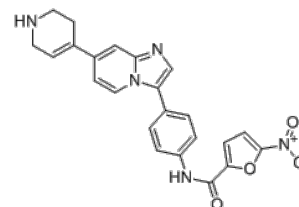


Product Name : W1131
Cat. No. : PC-38849
CAS No. : 2740522-79-4
Molecular Formula : C₂₃H₁₉N₅O₄
Molecular Weight : 429.436
Target : STAT
Solubility : 10 mM in DMSO



Biological Activity

W1131 is a potent and selective **STAT3** inhibitor with K_d of 7.55 μM in surface plasmon resonance (SPR) assays, inhibits STAT3 Tyr705 phosphorylation, triggers ferroptosis and possesses potent anti-tumor effects both in vitro and in vivo. W1131 inhibited STAT3 tyrosine phosphorylation and dimerization, accumulation of nuclear pY705-STAT3, and transcriptional activity.

W1131 inhibited STAT3 Tyr705 phosphorylation in a time- and dose-dependent manner without obvious effect on the activation of STAT1 and STAT5, W1131 had no obvious effect on phospho-JAK2 or phospho-AKT levels.

W1131 strongly inhibited cell survival, migration, and invasion, W1131 (1 μM) triggers ferroptosis and inhibited GPX4, SLC7A11, and FTH1 expression in gastric cancer cells.

W1131 (3 mg/kg and 10 mg/kg, i.p.) induced ferroptosis and regressed tumor growth of gastric cancer in vivo.

W1131 also alleviated chemotherapy resistance (5-FU) in multiple models of gastric cancer.

References

Ouyang S, et al. *Redox Biol.* 2022 Jun;52:102317.

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

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