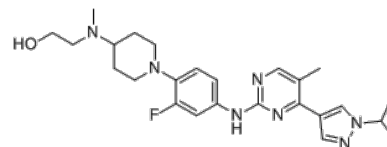


Product Name : Flonoltinib
Cat. No. : PC-38005
CAS No. : 2387765-27-5
Molecular Formula : C₂₅H₃₄N₇O
Molecular Weight : 467.593
Target : JAK
Solubility : 10 mM in DMSO



Biological Activity

Flonoltinib is a potent, highly selective, dual **JAK2/FLT3** inhibitor with IC₅₀ of 0.8, 1.4, and 15 nM for JAK2, JAK2V617F, and FLT3, respectively.

Flonoltinib displays 650-900 folds more selectivity to JAK2 than JAK1 and JAK3, and -80 folds greater selectivity for JAK2 over TYK2.

Flonoltinib binds to JH1, JH2, and JH2V617F of JAK2 with K_D values of 20.9, 3.14 and 5.21 μM, respectively, demonstrates high inhibitory activity and selectivity for JAK2 JH2 protein.

Flonoltinib inhibits GM-CSF-induced p-STAT5, which involve JAK2/JAK2 signaling with IC₅₀ of 0.12 μM, but not IFN-α-induced p-STAT1 (IC₅₀>5 μM).

Flonoltinib exhibits anti-proliferative IC₅₀ values of <0.5 μM on JAK2V617F mutant cell lines, with stronger anti-proliferative activity in mutant (Ba/F3-JAK2V617F) cell lines (IC₅₀=0.2 μM) than wild-type cells (Ba/F3-JAK2WT, IC₅₀= 0.39 μM).

Flonoltinib also inhibits FLT3 mutant tumor cell lines with IC₅₀ <0.1 μM.

Flonoltinib (15 and 30 mg/kg) demonstrates robust antitumor activity in Ba/F3-JAK2 V617F disease model.

Flonoltinib also shows efficacy against JAK2V617F bone marrow transplantation (BMT) mouse model of myelofibrosis in vivo, orally active.

References

Hu M, et al. *Blood Cancer J.* 2022 Mar 7;12(3):37.

Zhu J, et al. *Biomed Pharmacother.* 2021 May;137:111373.

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

E-mail: tech@probechem.com