

JAK2-IN-14

Chemical Properties

CAS No. :	3087335-24-5
Formula:	C ₂₆ H ₃₃ N ₇ O
Molecular Weight:	459.6
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	JAK2-IN-14 is an orally effective JAK2 inhibitor with an IC ₅₀ of 2 nM. It exhibits selectivity for JAK2 over JAK1, JAK3, and TYK2 by factors of 89.5, 80.5, and 51 times, respectively. JAK2-IN-14 inhibits the STAT5 signaling pathway and can cause tumor cell cycle arrest and apoptosis (apoptosis). It is applicable in the research of myeloproliferative neoplasms (MPN).
Targets(IC50)	Apoptosis,STAT,JAK
In vitro	JAK2-IN-14 (Compound 15au) induces significant G2/M phase cell cycle arrest and apoptosis in a dose-dependent manner within BaF3-JAK2 V617F and HEL cells at concentrations of 0.01-5 μM over 24 hours. Additionally, at concentrations of 0.05-1 μM over 2 hours, JAK2-IN-14 effectively inhibits the phosphorylation of JAK2 and its downstream signaling molecule STAT5 in these cells.
In vivo	JAK2-IN-14 (Compound 15au), administered orally at doses of 7.5-40 mg/kg once daily for 13-28 days, significantly inhibits tumor growth in xenograft mouse models of BaF3-JAK2 V617F and HEL cells.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1758 mL	10.879 mL	21.7581 mL
5 mM	0.4352 mL	2.1758 mL	4.3516 mL
10 mM	0.2176 mL	1.0879 mL	2.1758 mL
50 mM	0.0435 mL	0.2176 mL	0.4352 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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