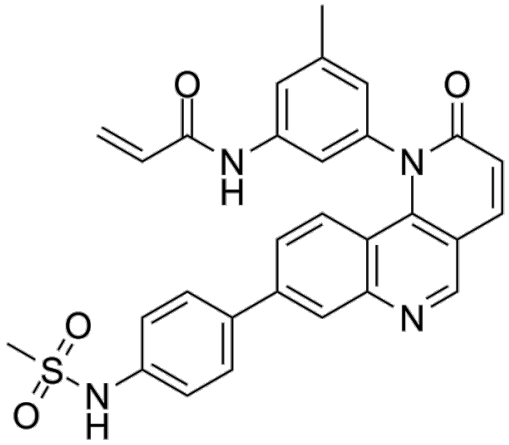
Product Data Sheet

Product Name: JS25
Cat. No.: GC73364

Chemical Properties

Cas. No.	2411771-95-2		
Formula	$C_{29}H_{24}N_4O_4S$	M.Wt	524.59
Solubility	DMSO : 20 mg/mL (38.13 mM; ultrasonic and warming and heat to 60°C)	Storage	4°C, sealed storage, away from moisture
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

JS25 is a selective and covalent inhibitor of BTK that inactivates BTK with an IC50 value of 5.8 nM by chelating Tyr551. JS25 inhibits cancer cells proliferation, pronounces cell death, and promotes murine xenograft model of Burkitt's lymphoma. JS25 effectively crosses the blood-brain barrier.

JS25 (0-50 μM; 72 h) inhibits the proliferation of myeloid and lymphoid B-cell cancer cell lines.JS25 shows inhibitory capability against BTK, BMX, ITK, TXK, TEC, and BLK with IC50s of 28.5 nM, 49.0

Product Data Sheet

nM, 0.44 μM, 0.19 μM, 0.22 μM, and 2.60 μM, respectively; shows little inhibition against other BTK pathway-related proteins (EGFR, ERBB2, and JAK3), with IC50>3 μM. JS25 presents a more favorable selectivity profile than Ibrutinib and Acalabrutinib [1].JS25 (10 μM; 0, 4, 15 h) degrades BTK and inhibits both the catalytic activity and the expression of BTK in tumor cells[1].JS25 (10 μM; 72 h) inhibits the tumor growth of Burkitt's lymphoma and induces selective ex vivo cytotoxicity in primary diffuse large B-cell lymphoma (DLBCL) samples[1].

JS25 (10 mg/kg and 20 mg/kg; i.p.; every 2 days, for 14 d) inhibits tumor growth and results a significant reduction in their secondary tumor formation in murine xenograft model of Burkitt's lymphoma[1].JS25 (1, 2.5, and 5 μM; injection; every day for 2 days) decreases tumor burden in zebrafish patient-derived xenografts of chronic lymphocytic leukemia, wich efficacy is better than Ibrutinib [1].

References:
[1]. Sousa B B, et al. Selective Inhibition of Bruton's Tyrosine Kinase by a Designed Covalent Ligand Leads to Potent Therapeutic Efficacy in Blood Cancers Relative to Clinically Used Inhibitors[J]. ACS Pharmacology & Translational Science, 2022.

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA