

WBC100

Chemical Properties

CAS No. : 2095780-08-6

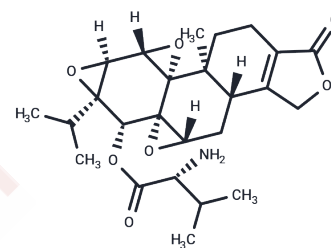
Formula: C₂₅H₃₃N₇O₇

Molecular Weight: 459.53

Keep away from direct sunlight

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	WBC100 (14-D-Valine-TPL) is a potent, selective, orally active c-Myc glue degrader targeting the ubiquitin E3 ligase CHIP-mediated 26S proteasome pathway, primarily used in research for c-Myc overexpressing tumors [1].
Targets(IC50)	Molecular Glues,c-Myc
In vitro	WBC100 selectively targets and eradicates cancer cell lines overexpressing c-Myc, such as Mia-paca2, H9, and MOLM-13, as well as non-cancerous cell lines with low c-Myc expression, including L02, MRC-5, and WI38 cells. The half-maximal inhibitory concentrations (IC50) for the overexpressing cancer cells were determined to be 61×10^{-9} M, 17×10^{-9} M, and 16×10^{-9} M, respectively. In contrast, the IC50 values for the normal cell lines were significantly higher, at 2205×10^{-9} M, 151×10^{-9} M, and 570×10^{-9} M [1]. Treatment with WBC100 (0-320 nM; 24 hours) resulted in a dose-dependent reduction of c-Myc protein levels in MOLM-13 and Mia-paca2 cells without significantly affecting the levels of XPB, Rpb1, and STAT3 proteins. Furthermore, the decrease in c-Myc protein levels induced by WBC100 could be rescued by MG132 [1].
In vivo	WBC100, administered orally at a dosage of 0.1-0.4 mg/kg twice daily for 21 days, demonstrated dose-dependent antitumor activity in vivo. Higher (0.4/0.2 mg/kg) doses of WBC100 resulted in the eradication of MOLM-13-luciferase cells in vivo, with all mice remaining disease-free by day 35. Moreover, at a lower dose of 0.1 mg/kg, WBC100 significantly inhibited leukemia tumor growth in mice and extended survival [1]. When given orally at a dosage of 0.4-0.8 mg/kg once daily for 14 days, WBC100 eliminated refractory MOLM-13-luciferase cells in vivo, whereas (+)-JQ1 administered at 50 mg/kg by intraperitoneal injection once daily for the same duration was ineffective in suppressing tumor growth. WBC100 exhibited stronger antitumor activity than the c-Myc transcription inhibitor (+)-JQ1 [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1761 mL	10.8807 mL	21.7614 mL
5 mM	0.4352 mL	2.1761 mL	4.3523 mL
10 mM	0.2176 mL	1.0881 mL	2.1761 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

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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