

JCS-1

## Chemical Properties

CAS No. :

Formula: C<sub>62</sub>H<sub>79</sub>N<sub>9</sub>O<sub>12</sub>S

Molecular Weight: 1174.41

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	JCS-1 is a potent DcpSPROTAC degrader. It non-covalently binds to DcpS via an RG3039-based warhead and recruits the E3 ligase VHL. JCS-1 facilitates the ubiquitination and degradation of DcpS at nanomolar concentrations, with a DC50 of 87 nM in MOLM-14 cells. This compound can be utilized in research on acute myeloid leukemia and other DcpS-dependent genetic disorders.
Targets(IC50)	Phosphatase,PROTACs
In vitro	JCS-1 exhibits a dose-dependent degradation of DcpS in MOLM-14 cells with a DC50 of 87 nM across a range of 0.1 to 10000 nM over 24 hours. At a concentration of 1 μM, JCS-1 causes rapid and sustained degradation of DcpS within 2 hours of treatment, reaching maximum degradation between 12 and 24 hours. Furthermore, JCS-1 (1 μM, administered every 3 days for a total of 12 days) inhibits proliferation and reduces the viability of MOLM-14 cells, with an IC50 of 1.1 μM. Treatment with JCS-1 (1 μM for 6 hours) also affects the mRNA profile of MOLM-14 cells, notably increasing the expression of SNORD99 and DDX24. The degradation induced by JCS-1 can be inhibited by the endopeptidase inhibitor MLN4924 and the proteasome inhibitor Epoxomicin.

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.8515 mL	4.2575 mL	8.5149 mL
5 mM	0.1703 mL	0.8515 mL	1.703 mL
10 mM	0.0851 mL	0.4257 mL	0.8515 mL
50 mM	0.017 mL	0.0851 mL	0.1703 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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