

BRD5631

Chemical Properties

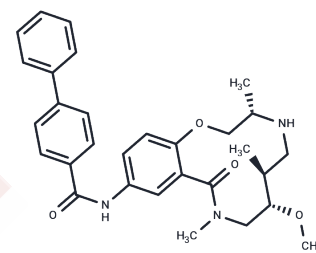
CAS No. : 2446154-91-0

Formula: C₃₀H₃₅N₃O₄

Molecular Weight: 501.62

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	BRD5631 is an autophagy enhancer that operates through an mTOR-independent pathway. It influences several cellular disease phenotypes associated with autophagy, such as protein aggregation, cell survival, bacterial replication, and inflammatory cytokine production. BRD5631 can serve as a valuable tool for studying the role of autophagy in cellular homeostasis and disease. [1].
Targets(IC50)	Autophagy
In vitro	BRD5631 treatment (10 μM, 48 hours) elevates LC3-II levels in HeLa cells, indicating an enhancement in autophagosome formation. This activity aligns with the observed increase in autolysosome numbers in the mCherry-GFP-LC3 assay [1], suggesting BRD5631 promotes autophagy not by directly inhibiting mTOR or its signaling pathway but through alternative mechanisms. Additionally, BRD5631 reduces IL-1β secretion via an autophagy-dependent process, underscoring its potential as a modulator of autophagy-related functions [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9935 mL	9.9677 mL	19.9354 mL
5 mM	0.3987 mL	1.9935 mL	3.9871 mL
10 mM	0.1994 mL	0.9968 mL	1.9935 mL
50 mM	0.0399 mL	0.1994 mL	0.3987 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.

Reference

Kuo SY, et al. Small-molecule enhancers of autophagy modulate cellular disease phenotypes suggested by human genetics. Proc Natl Acad Sci U S A. 2015 Aug 4;112(31):E4281-7.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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