

Product Data Sheet

Product Name: T1742
Cat. No.: GC78986

Chemical Properties

Cas. No. 2841473-81-0

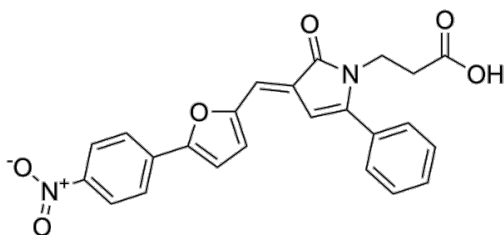
Formula $C_{24}H_{18}N_2O_6$ M.Wt 430.41

Solubility Storage Store at -20°C

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

T1742 is an autophagy inhibitor targeting ATG5. T1742 blocks and disrupts protein-protein interactions between ATG5 and ATG16L1, and between ATG5 and TECAIR. T1742 inhibits autophagy in living cells via reduced autophagosome formation and downregulated ATG8-PE conjugation. T1742 can be used to study autophagy mechanisms [1] [2] [3].

In Vitro, T1742 (2.5-40 μM; 16 h) dose-dependently inhibits autophagy in COS-7 cells [1]. T1742 (1.25-40 μM; 6 h) dose-dependently reduces LC3-II levels, indicating autophagy inhibition, in COS-7,

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U-937, and THP-1 cells^[1]. T1742 blocks the ATG5-ATG16L1 and ATG5-TECAIR protein-protein interactions in vitro with IC₅₀ values of 1.1 μ M and 1.7 μ M, respectively^[2].

References:

- [1]. Xiang H, et al. Discovery of Small-Molecule Autophagy Inhibitors by Disrupting the Protein-Protein Interactions Involving Autophagy-Related 5. J Med Chem. 2023 Feb 23;66(4):2457-2476.
- [2]. Xiang H, et al. Discovery of small-molecule inhibitors for the protein-protein interactions involving ATG5. Autophagy Rep. 2023;2(1):2215617. Published 2023 May 27.
- [3]. Yan D, et al. Molecular dynamics-driven drug discovery. Phys Chem Chem Phys. 2025;27(24):12633-12651. Published 2025 Jun 18.

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