

ZWZH-21

## Chemical Properties

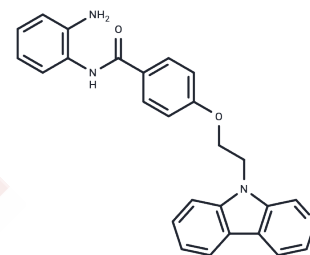
CAS No. : 3069195-42-9

Formula: C<sub>26</sub>H<sub>22</sub>N<sub>4</sub>O<sub>2</sub>

Molecular Weight: 422.48

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                | WZH-21 is a selective and orally active dual HDAC1/2 inhibitor, exhibiting an IC <sub>50</sub> of 34 nM for HDAC1 and 41 nM for HDAC2. It inhibits the growth of HCT116 and SW480 cells with IC <sub>50</sub> values of 0.524 μM and 1.063 μM, respectively. WZH-21 suppresses proliferation and migration of various colorectal cancer cells and induces apoptosis (apoptosis). It is applicable in cancer research, including studies on colorectal cancer.   |
| Targets(IC <sub>50</sub> ) | Apoptosis,HDAC  |
| In vitro                   | ZWZH-21 effectively inhibits the growth of A549, MCF-7, and HepG2 cells, with IC <sub>50</sub> values of 1.66 μM, 2.445 μM, and 1.551 μM respectively. It suppresses the temperature-induced degradation of HDAC1/2 in HCT116 cells at concentrations of 0.4-1.6 μM over 48 hours. This compound also induces the degradation of HDAC1 and HDAC2 proteins and the formation of Ac-H3 and histone H4 in a concentration-dependent manner within HCT116 cells. ZWZH-21 reduces the colony-forming ability of HCT116 and SW480 cells and inhibits their migration while inducing apoptosis when applied at 0.4-2 μM for 48 hours. Additionally, ZWZH-21 triggers G1 phase arrest in HCT116 and SW480 cells under similar conditions. |
| In vivo                    | ZWZH-21 (2000 mg/kg, single oral dose) has demonstrated good safety in mice. In addition, ZWZH-21 (30-120 mg/kg, via gavage, administered daily for 14 days) effectively inhibited tumor growth in mice implanted with HCT116 human colon cancer xenografts.  |

### Preparing Stock Solutions

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|       | <b>1mg</b> | <b>5mg</b> | <b>10mg</b> |
|-------|------------|------------|-------------|
| 1 mM  | 2.367 mL   | 11.8349 mL | 23.6698 mL  |
| 5 mM  | 0.4734 mL  | 2.367 mL   | 4.734 mL    |
| 10 mM | 0.2367 mL  | 1.1835 mL  | 2.367 mL    |
| 50 mM | 0.0473 mL  | 0.2367 mL  | 0.4734 mL   |

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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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