

PKUMDL-WQ-2201

Chemical Properties

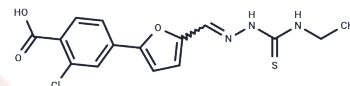
CAS No. : 592474-91-4

Formula: C₁₅H₁₄ClN₃O₃S

Molecular Weight: 351.81

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	PKUMDL-WQ-2201 is a PHGDH non-NAD ⁺ -competing allosteric inhibitor with micromolar potency against wild-type and mutant PHGDH enzymes, effectively suppressing de novo serine biosynthesis in cancer cells and reducing tumor growth, PKUMDL-WQ-2201 provide a metabolic intervention strategy for studying serine-dependent tumor metabolism.
Targets(IC50)	Dehydrogenase
In vitro	In PHGDH-amplified breast cancer cell lines such as MDA-MB-468, treatment with PKUMDL-WQ-2201 effectively inhibited serine synthesis and suppressed cell proliferation with GI50 values ranging from 6 to 20 μM. This antiproliferative effect was accompanied by the induction of apoptosis in the treated cells [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (227.4 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8424 mL	14.2122 mL	28.4244 mL
5 mM	0.5685 mL	2.8424 mL	5.6849 mL
10 mM	0.2842 mL	1.4212 mL	2.8424 mL
50 mM	0.0568 mL	0.2842 mL	0.5685 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

Wang Q, et al. Rational Design of Selective Allosteric Inhibitors of PHGDH and Serine Synthesis with Anti-tumor Activity. Cell Chem Biol. 2017 Jan 19;24(1):55-65.

Zhao JY, et al. A retrospective overview of PHGDH and its inhibitors for regulating cancer metabolism. Eur J Med Chem. 2021 May 5;217:113379.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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