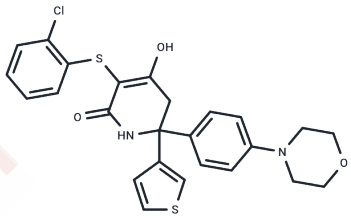
Data Sheet (Cat.No.T27421)

TargetMol

GNE-140

Chemical Properties



CAS No. : 1809794-70-4

Formula: C25H23ClN2O3S2

Molecular Weight: 499.04

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	GNE-140 is a novel and potent lactate dehydrogenase A (LDHA) inhibitor that disrupts glycolytic metabolism in MIA PaCa-2 human pancreatic cancer cells, inducing rapid metabolic reprogramming prior to delayed cell death, with intrinsic resistance observed in OXPHOS-dependent pancreatic cell lines that can be reversed by phenformin, while acquired resistance is driven by AMPK-mTOR-S6K pathway activation, highlighting its value for studying metabolic plasticity and therapeutic resistance.
Targets(IC50)	Dehydrogenase
In vitro	In biochemical assays, the active enantiomer of GNE-140 inhibited LDHA with an IC50 of 3 nM. In cell-based assays using MiaPaCa-2 pancreatic cancer cells, the compound inhibited lactate production (IC50 0.23 μM) and reduced proliferation [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0038 mL	10.0192 mL	20.0385 mL
5 mM	0.4008 mL	2.0038 mL	4.0077 mL
10 mM	0.2004 mL	1.0019 mL	2.0038 mL
50 mM	0.0401 mL	0.2004 mL	0.4008 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

Boudreau A, et al. Metabolic plasticity underpins innate and acquired resistance to LDHA inhibition. Nat Chem Biol. 2016 Oct;12(10):779-86.

Ždralević M, et al. Double genetic disruption of lactate dehydrogenases A and B is required to ablate the "Warburg effect" restricting tumor growth to oxidative metabolism. J Biol Chem. 2018 Oct 12;293(41):15947-15961.

Purkey HE, et al. Cell Active Hydroxylactam Inhibitors of Human Lactate Dehydrogenase with Oral Bioavailability in Mice. ACS Med Chem Lett. 2016 Aug 26;7(10):896-901.

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