

KL-11743

Chemical Properties

CAS No. : 1369452-53-8

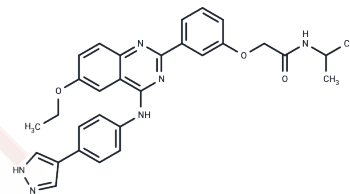
Formula: C₃₀H₃₀N₆O₃

Molecular Weight: 522.6

Store at low temperature

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	KL-11743 specifically blocks glucose metabolism, triggering an acute collapse in NADH pools and a striking accumulation of aspartate, indicating a dramatic shift toward oxidative phosphorylation in the mitochondria.
Targets(IC50)	transporter
In vitro	Patient-derived xenograft models of succinate dehydrogenase A (SDHA)-deficient cancers are specifically sensitive to KL-11743, providing direct evidence that TCA cycle-mutant tumors are vulnerable to GLUT inhibitors in vivo[1].

Solubility Information

Solubility	DMSO: 14 mg/mL (26.79 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (3.83 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9135 mL	9.5675 mL	19.1351 mL
5 mM	0.3827 mL	1.9135 mL	3.827 mL
10 mM	0.1914 mL	0.9568 mL	1.9135 mL
50 mM	0.0383 mL	0.1914 mL	0.3827 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

Olszewski K, et al. Inhibition of glucose transport synergizes with chemical or genetic disruption of mitochondrial metabolism and suppresses TCA cycle-deficient tumors. Cell Chem Biol. 2021 Oct 22:S2451-9456(21)00441-4.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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