

Seco-DUBA

Chemical Properties

CAS No. : 1227961-59-2

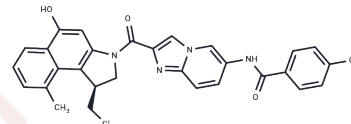
Formula: C₂₉H₂₃ClN₄O₄

Molecular Weight: 526.97

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	Seco-DUBA is an anticancer DNA alkylating agent and prodrug of DUBA, which can be used as a cytotoxic antibody-drug conjugate (ADC). It has an IC ₅₀ of 18 nM against KB and 430 pM against SK-OV-3, and can be converted into DUBA with higher stability and activity in vivo.
Targets(IC ₅₀)	ADC Cytotoxin,DNA Alkylation
In vitro	<p>Method: SK-BR-3 cells were exposed to various concentrations of Seco-DUBA (ranging from 0.0001 pM to 0.01 nM) for 144 hours to evaluate its cytotoxic effects.</p> <p>Result: Seco-DUBA treatment led to a dose-dependent reduction in SK-BR-3 cell viability.[1]</p>
In vivo	<p>Method: Pharmacokinetic analysis was conducted in Wistar rats. Seco-DUBA was administered via intravenous injection at a dose of 89 µg/kg.</p> <p>Result: Seco-DUBA was likely converted to DUBA almost instantaneously in vivo. [1]</p>

Solubility Information

Solubility	DMSO: 80 mg/mL (151.81 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	1.8976 mL	9.4882 mL	18.9764 mL
5 mM	0.3795 mL	1.8976 mL	3.7953 mL
10 mM	0.1898 mL	0.9488 mL	1.8976 mL
50 mM	0.038 mL	0.1898 mL	0.3795 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

Elgersma RC, et al. Design, Synthesis, and Evaluation of Linker-Duocarmycin Payloads: Toward Selection of HER2-Targeting Antibody-Drug Conjugate SYD985. Mol Pharm. 2015;12(6):1813-1835.
Platform Technologies in Drug Discovery and Validation

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