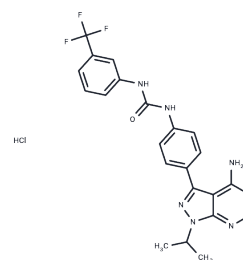


AD57 (hydrochloride)

Chemical Properties

CAS No. :	2320261-72-9
Formula:	C ₂₂ H ₂₁ ClF ₃ N ₇ O
Molecular Weight:	491.9
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	AD57, as polypharmacological cancer therapeutic, is designed to regulate multiple targets related to cancer blocks the receptor tyrosine kinase RET in Drosophila (IC ₅₀ : 2 nM). AD57 effectively suppresses tyrosine kinase RET, weakens the activity of numerous other kinases, and interferes with kinases downstream of RET, including Raf, Src, and S6K, providing further efficacy in preventing signaling leading to invasion, proliferation, and metabolism-related to cancer. Tyrosine kinase RET is probably sufficient to initiate a series of transformation events including medullary thyroid carcinoma, multiple endocrine neoplasias type 2A, and 2B.
Targets(IC ₅₀)	Raf,Others,c-RET,S6 Kinase,Src
In vitro	In vitro: AD57 was demonstrated to be able to inhibit tyrosine kinase RET. But the efficacy of AD57 did not correlate solely with the blockade of RET, suggesting that the targeting of additional kinases is necessary for its biological efficacy. AD57 potently dampened the pathway-related human kinases B-Raf, mTOR, S6K, and Src [1].
In vivo	In vivo: Male nu nu mice, injected subcutaneously with MEN2A cell lines, were administered AD57 (20 mg/kg) by oral gavage (per os) once daily, five times a week. AD57 inhibited the activity of relevant target kinases at 1 μM compared with the vehicle-treated nude mice transplanted with MEN2A cells [1].

Solubility Information

Solubility	Ethanol: ≤5 mg/mL,Sonication is recommended. DMSO: 10 mg/mL (20.33 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	2.0329 mL	10.1647 mL	20.3293 mL
5 mM	0.4066 mL	2.0329 mL	4.0659 mL
10 mM	0.2033 mL	1.0165 mL	2.0329 mL
50 mM	0.0407 mL	0.2033 mL	0.4066 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.

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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