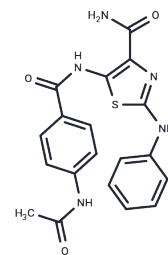


TNIK-IN-1

Chemical Properties

CAS No. :	933886-36-3
Formula:	C ₁₉ H ₁₇ N ₅ O ₃ S
Molecular Weight:	395.43
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	TNIK-IN-1 (Compound 1) is a potent inhibitor of Traf2 and Nck-interacting kinase (TNIK), with an IC ₅₀ of 65 nM. TNIK is a pivotal effector in the Wnt/beta-catenin signaling pathway, essential for the maintenance of cancer stem cell properties and cellular proliferation. As a lead molecule based on the 4-phenyl-2-phenylaminopyridine scaffold, TNIK-IN-1 demonstrates significant antitumor activity by blocking TNIK kinase function and disrupting oncogenic signaling cascades, making it a valuable tool for researching Wnt-driven malignancies.
Targets(IC ₅₀)	Wnt/beta-catenin
In vitro	In kinase activity assays, TNIK-IN-1 exhibits high affinity for TNIK, functioning as an ATP-competitive inhibitor that binds to the kinase domain. It effectively suppresses the proliferation of tumor cell lines dependent on Wnt signaling, particularly in models of colorectal cancer. Furthermore, as TNIK is involved in cytoskeletal reorganization, TNIK-IN-1 serves as an ideal probe for investigating the molecular drivers of tumor cell migration and invasion [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (202.31 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	2.5289 mL	12.6445 mL	25.2889 mL
5 mM	0.5058 mL	2.5289 mL	5.0578 mL
10 mM	0.2529 mL	1.2644 mL	2.5289 mL
50 mM	0.0506 mL	0.2529 mL	0.5058 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

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