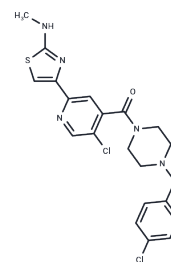


WNK-IN-11

Chemical Properties

CAS No. :	2123489-30-3
Formula:	C ₂₁ H ₂₁ Cl ₂ N ₅ O ₅
Molecular Weight:	462.4
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	WNK-IN-11 (Allosteric WNK Kinase Inhibitor) is an allosteric With-No-Lysine (WNK) kinase inhibitor, WNK1 (IC ₅₀ : 4 nM)
Targets(IC ₅₀)	Serine Protease, Serine/threonin kinase
In vitro	WNK-IN-11 (compound 11) demonstrates potent activity with an IC ₅₀ value of less than 2 μM in the OSR1 phosphorylation assay, exhibits reasonable water solubility, and shows relatively high microsomal clearance. It functions through ATP noncompetitive inhibition. When tested against a comprehensive panel of 440 human kinases at 10 μM, 2500-fold higher than the enzyme's IC ₅₀ , WNK-IN-11 exhibits high selectivity, with significant off-target inhibition only against BTK and the feline encephalitis virus-related (FER) kinase, neither of which are involved in blood pressure regulation. This specificity highlights its potential as a targeted therapeutic agent, likely due to its predicted allosteric binding outside the conserved ATP-pocket region.

Solubility Information

Solubility	H ₂ O: Insoluble, DMSO: 150 mg/mL (324.39 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (8.65 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	2.1626 mL	10.8131 mL	21.6263 mL
5 mM	0.4325 mL	2.1626 mL	4.3253 mL
10 mM	0.2163 mL	1.0813 mL	2.1626 mL
50 mM	0.0433 mL	0.2163 mL	0.4325 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

Yamada K, et al. Optimization of Allosteric With-No-Lysine (WNL) Kinase Inhibitors and Efficacy in Rodent Hypertension Models. *J Med Chem.* 2017 Aug 24;60(16):7099-7107.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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