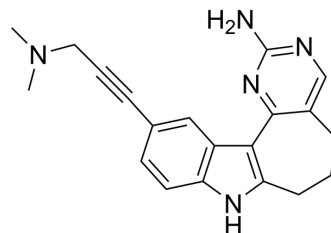


PIKfyve-IN-1

Cat. No.:	HY-151473		
CAS No.:	2857982-26-2		
Molecular Formula:	C ₂₀ H ₂₁ N ₅		
Molecular Weight:	331.41		
Target:	PIKfyve		
Pathway:	PI3K/Akt/mTOR		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (301.74 mM; ultrasonic and warming and heat to 80°C)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
Preparing Stock Solutions	1 mM	3.0174 mL	15.0871 mL	30.1741 mL
	5 mM	0.6035 mL	3.0174 mL	6.0348 mL
	10 mM	0.3017 mL	1.5087 mL	3.0174 mL
Please refer to the solubility information to select the appropriate solvent.				
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (7.54 mM); Clear solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.54 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (7.54 mM); Clear solution; Need ultrasonic 			

BIOLOGICAL ACTIVITY

Description	PIKfyve-IN-1 is a highly potent and cell-active chemical probe that inhibits phosphatidylinositol-3-phosphate 5-kinase (PIKfyve) with IC ₅₀ value of 6.9 nM. PIKfyve-IN-1 can be used for the research of PIKfyve in virology ^[1] . PIKfyve-IN-1 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.
IC₅₀ & Target	IC ₅₀ : 6.9 nM (PIKfyve) ^[1]

In Vitro

PIKfyve-IN-1 inhibits PIKfyve in PIKfyve enzymatic assay and PIKfyve NanoBRET assay with IC₅₀ values of 6.9 nM and 4.01 nM, respectively^[1].

PIKfyve-IN-1 (0-10 μM) disrupts multiple phases of the lifecycle of coronaviruses: viral replication and viral entry^[1].

PIKfyve-IN-1 inhibits MHV replication and SARS-CoV-2 replication with IC₅₀ values of 23.5 nM and 19.5 nM, respectively^[1].

PIKfyve-IN-1 (5 μM) impacts lysosomal homeostasis^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Immunofluorescence^[1]

Cell Line:	Calu-3 cells
Concentration:	1 μM
Incubation Time:	1 h
Result:	Inhibited the uptake of lentivirus pseudotyped with the SARS-CoV-2 spike glycoprotein.

REFERENCES

[1]. David H Drewry, et al. Identification and Utilization of a Chemical Probe to Interrogate the Roles of PIKfyve in the Lifecycle of β-Coronaviruses. J Med Chem

Caution: Product has not been fully validated for medical applications. For research use only.

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