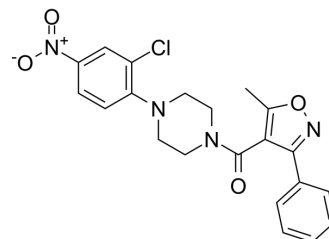


Nucleozin

Cat. No.:	HY-50001
CAS No.:	341001-38-5
Molecular Formula:	C ₂₁ H ₁₉ ClN ₄ O ₄
Molecular Weight:	426.85
Target:	Influenza Virus
Pathway:	Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 20 mg/mL (46.85 mM; Need ultrasonic)					
	Preparing Stock Solutions	<div><div>Solvent</div><div>Concentration</div></div>	Mass	1 mg	5 mg	10 mg
		1 mM		2.3427 mL	11.7137 mL	23.4274 mL
		5 mM		0.4685 mL	2.3427 mL	4.6855 mL
		10 mM		0.2343 mL	1.1714 mL	2.3427 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2 mg/mL (4.69 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2 mg/mL (4.69 mM); Suspended solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Nucleozin, a potent inhibitor of influenza A virus infection, induces the formation of nucleoprotein (NP) aggregates and antagonizes its nuclear accumulation, leading to cessation of viral replication. Nucleozin impedes influenza A virus replication in vitro with a nanomolar EC ₅₀ ^[1] .
In Vitro	Nucleozin inhibits infection of MDCK cells by the viruses influenza A/WSN/33, H3N2 and Vietnam/1194/04 (H5N1) with an EC ₅₀ of 0.069 μM, 0.16 μM and 0.33 μM in plaque reduction assay (PRA), respectively, severely suppresses viral growth at 0.1 μM and totally inhibites virus production at 1 μM in multicycle growth assays ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Nucleozin protects mice challenged with lethal doses of avian influenza A H5N1 ^[1] .

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

CUSTOMER VALIDATION

- Antiviral Res. 2017 Jul;143:106-112.
- Phytochemistry. 2023 Aug 17;113829.
- Biochem Biophys Res Commun. 2014 Jul 18;450(1):49-54.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Kao RY, et al. Identification of influenza A nucleoprotein as an antiviral target. Nat Biotechnol. 2010;28(6):600-605.

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

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