116-9e

Cat. No.:	HY-116683				
CAS No.:	831217-43-7				
Molecular Formula:	$C_{31}H_{32}N_2O_5$				
Molecular Weight:	512.6				
Target:	HSP; DNA/RNA Synthesis				
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease				
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 (195.08 mM; Need ultrasonic)						
	Preparing Stock Solutions	Mass Solvent Concentration	1 mg	5 mg	10 mg		
		1 mM	1.9508 mL	9.7542 mL	19.5084 mL		
		5 mM	0.3902 mL	1.9508 mL	3.9017 mL		
		10 mM	0.1951 mL	0.9754 mL	1.9508 mL		
	Please refer to the so	lubility information to select the app	propriate solvent.				
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.88 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (4.88 mM); Suspended solution; Need ultrasonic						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.88 mM); Clear solution						

BIOLOGICAL ACTIVITY				
Description	116-9e (MAL2-11B) is a Hsp70 co-chaperone DNAJA1 inhibitor. 116-9e inhibits Simian Virus 40 (SV40) replication and DNA synthesis. 116-9e inhibits tumor antigen (TAg)'s endogenous ATPase activity and the TAg-mediated activation of Hsp70 ^{[1][2]} .			
IC₅₀ & Target	Simian Virus 40 (SV40) ^[1] Hsp70 co-chaperone DNAJA1 ^[2]			
In Vitro	116-9e (MAL2-11B) inhibits TAg stimulation of Hsp70 with greater efficacy than MAL3-101, significantly reduces viral			



Product Data Sheet

replication and DNA synthesis. MAL2-11B also inhibits the activity of the TAg ATPase domain^[1]. 116-9e (MAL2-11B; 15 μM; 5 days) significantly reduces the growth of BK virus in a human kidney cell line^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Christine M Wright, et al. Inhibition of Simian Virus 40 replication by targeting the molecular chaperone function and ATPase activity of T antigen. Virus Res. 2009 Apr;141(1):71-80.

[2]. Nitika, et al. Chemogenomic screening identifies the Hsp70 co-chaperone DNAJA1 as a hub for anticancer drug resistance. Sci Rep. 2020 Aug 14;10(1):13831.

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

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