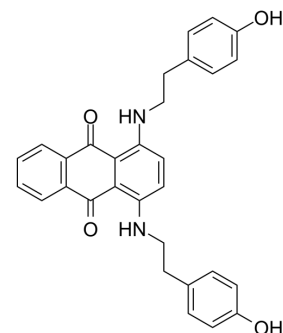


JFD00244

Cat. No.:	HY-108986		
CAS No.:	96969-83-4		
Molecular Formula:	C ₃₀ H ₂₆ N ₂ O ₄		
Molecular Weight:	478.54		
Target:	Sirtuin; SARS-CoV		
Pathway:	Cell Cycle/DNA Damage; Epigenetics; Anti-infection		
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 : 50 mg/mL (104.48 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.0897 mL	10.4484 mL	20.8969 mL
	5 mM	0.4179 mL	2.0897 mL	4.1794 mL
	10 mM	0.2090 mL	1.0448 mL	2.0897 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: 2.08 mg/mL (4.35 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

JFD00244 is a sirtuin 2 (SIRT2) inhibitor, with anti-tumor effect. JFD00244 is also a Nsp-16 inhibitor against SARS-CoV-2^{[1][2]}.

IC₅₀ & Target

SIRT2^[1]; SARS-CoV-2^[2]

In Vitro

JFD00244 (50 nM-50 μM; 48 h) inhibits cell growth against prostate cancer cell lines with IC₅₀s of 200 nM (22Rv1) and 1 μM (DU145), respectively^[3].

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

Cell Viability Assay^[3]

Cell Line:	22Rv1 and DU145 cells
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Concentration:	50 nM, 100 nM, 200 nM, 500 nM, 1 μ M, 5 μ M, 10 μ M, 50 μ M
Incubation Time:	48 hours
Result:	Inhibited prostate cancer cell lines significantly.

REFERENCES

- [1]. Shankar U, et al. Potential Drugs Targeting Nsp16 Protein May Corroborates a Promising Approach to Combat SARSCoV-2 Virus. ChemRxiv. Cambridge: Cambridge Open Engage; 2020; This content is a preprint and has not been peer-reviewed.
- [2]. Kim Dae Jung, et al. Pharmaceutical composition for preventing and treating prostate cancer: World Intellectual Property Organization, WO2014065537[P]. 2014-05-01.
- [3]. Ciarlo C, A chemical screen in zebrafish embryonic cells establishes that Akt activation is required for neural crest development. Elife. 2017 Aug 23;6. pii: e29145.
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Caution: Product has not been fully validated for medical applications. For research use only.

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