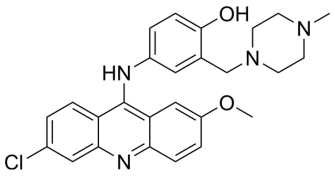
HM03

Cat. No.:	HY-125974
CAS No.:	500565-15-1
Molecular Formula:	$C_{26}H_{27}ClN_4O_2$
Molecular Weight:	462.97
Target:	HSP
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
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 : 125 mg/mL (270.00 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1600 mL	10.7998 mL	21.5997 mL
	5 mM	0.4320 mL	2.1600 mL	4.3199 mL
	10 mM	0.2160 mL	1.0800 mL	2.1600 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: ≥ 6.25 mg/mL (13.50 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

HM03 is a potent and selective HSPA5 (Heat shock 70kDa protein 5, also known as Bip, Grp78) inhibitor. HM03 has anticancer activity[1].

IC_{50} & Target

HSPA5

In Vitro

HM03 (0.1-50 μM; 72 hours) exhibits over 50% inhibition at 25 μM concentration in HCT116 cells[1].
?HM03 forms more binding interactions with HSPA5 and HSPA9 than with the other HSP70 proteins[1].
?HM03 exhibits promising inhibition activities from cancer cell viability and tumor inhibition assays[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	HCT116 cells
Concentration:	0.1, 1, 10, 25, 50 μM
Incubation Time:	72 hours
Result:	Exhibited prominent inhibition effect (18% survival at 25 μM).

CUSTOMER VALIDATION

- Proc Natl Acad Sci U S A. 2023 May 23;120(21):e2217119120.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Huang M, et al. Structure-based design of HSPA5 inhibitors: from peptide to small molecule inhibitors. Bioorg Med Chem Lett. 2013;23(10):3044-3050.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA