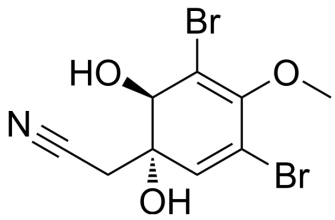
Aeroplysinin 1

Cat. No.:	HY-19827
CAS No.:	28656-91-9
Molecular Formula:	$C_9H_9Br_2NO_3$
Molecular Weight:	338.98
Target:	Bacterial; HIV; Apoptosis
Pathway:	Anti-infection; Apoptosis
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 3.39 mg/mL (10.00 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9500 mL	14.7501 mL	29.5003 mL
	5 mM	0.5900 mL	2.9500 mL	5.9001 mL
	10 mM	0.2950 mL	1.4750 mL	2.9500 mL

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

BIOLOGICAL ACTIVITY

Description

Aeroplysinin 1 ((+)-Aeroplysinin-1), a secondary metabolite isolated from marine sponges, shows potent antibiotic effects on Gram-positive bacteria and exerts antiviral activity against HIV-1 (IC_{50}=14.6 μM). Aeroplysinin 1 has anti-inflammatory, anti-angiogenic and anti-tumor activities. Aeroplysinin 1 induces apoptosis in endothelial cells[1][2].

IC_{50} & Target	Bacterial	HIV-1 14.6 μM (IC_{50})	Apoptosis

In Vitro

Aeroplysinin 1 shows anti-proliferative effect against tumor cells (HT-1080, HTC-116, HeLa, THP-1, NOMO-1 and HL-60 cells), with IC_{50}s ranging from 2.3 to 17 μM[1].

Aeroplysinin-1 also exhibits an antiviral activity toward HIV-1 caused by inhibition of its reverse transcriptase activity[1].

Aeroplysinin 1 inhibits P. phosphoreum, C. wailesii, P. minimum and HIV with IC_{50}s of 3.5, 5.6, 7.0 and 14.6 μM[1].

Aeroplysinin 1 inhibits human endothelial cells (EVLC-2, HMEC, RF-24, and HUVEC cells), with IC_{50}s ranging from 2.6 to 4.7 μM[2].

(+)-Aeroplysinin-1 (0.25-0.5 μM) blocks the EGF-dependent proliferation of both MCF-7 and ZR-75-1 human breast cancer cells and inhibits the ligand-induced endocytosis of the EGF receptor in vitro[3].

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

REFERENCES

[1]. García-Vilas JA, et al. Aeroplysinin-1, a Sponge-Derived Multi-Targeted Bioactive Marine Drug. Mar Drugs. 2015;14(1):1. Published 2015 Dec 22.

[2]. Martínez-Poveda B, et al. The brominated compound aeroplysinin-1 inhibits proliferation and the expression of key pro- inflammatory molecules in human endothelial and monocyte cells. PLoS One. 2013;8(1):e55203.

[3]. Kreuter MH, et al. Inhibition of intrinsic protein tyrosine kinase activity of EGF-receptor kinase complex from human breast cancer cells by the marine sponge metabolite (+)-aeroplysinin-1. Comp Biochem Physiol B. 1990;97(1):151-158.

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