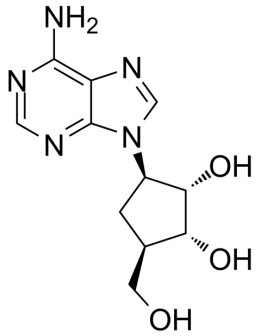
Aristeromycin

Cat. No.:	HY-112639
CAS No.:	19186-33-5
Molecular Formula:	$C_{11}H_{15}N_5O_3$
Molecular Weight:	265.27
Target:	Bacterial
Pathway:	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 (188.49 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.7697 mL	18.8487 mL	37.6974 mL
	5 mM	0.7539 mL	3.7697 mL	7.5395 mL
	10 mM	0.3770 mL	1.8849 mL	3.7697 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: 2.5 mg/mL (9.42 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.42 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.42 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Aristeromycin, an adenosine analog, is an antibiotic and a potent S-adenosylhomocysteine hydrolase (AHCY) inhibitor[1][2].

IC_{50} & Target

S-adenosylhomocysteine hydrolase[1]

In Vitro

The IC_{50} value of Aristeromycin against AHCY is 38.5 nM at 50 μM S-adenosylhomocysteine (SAH) (approximately equal to the Km: 48 μM), but 271 nM at 1000 μM SAH (20× Km). With 60 min of preincubation, the mean IC_{50} value of Aristeromycin at 50 μM SAH is 12.7 nM[1].

Aristeromycin has IC_{50} values of 3.2 μM for LNCaP-FGC cell growth and 0.88 μM for LNCaP-hr cell growth[1].
At least in part, Aristeromycin can regulate oncogenic EZH2 expression by inducing miR-26a[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Uchiyama N, et al. Aristeromycin and DZNeP cause growth inhibition of prostate cancer via induction of mir-26a. Eur J Pharmacol. 2017 Oct 5;812:138-146.

[2]. Ishikura T, et al. Inhibition of S-adenosylhomocysteine hydrolase by purine nucleoside analogues. Nucleic Acids Symp Ser. 1983;(12):119-22.

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