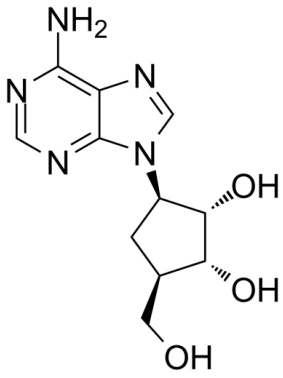
Data Sheet

Product Name:	Aristeromycin
Cat. No.:	CS-0058742
CAS No.:	19186-33-5
Molecular Formula:	$C_{11}H_{15}N_5O_3$
Molecular Weight:	265.27
Target:	Bacterial
Pathway:	Anti-infection
Solubility:	10 mM in DMSO



BIOLOGICAL ACTIVITY:

Aristeromycin, an adenosine analog, is an antibiotic and a potent **S-adenosylhomocysteine hydrolase (AHCY)** inhibitor[1][2]. IC50 & 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].

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.

CAIndexNames:

1,2-Cyclopentanediol,5-(6-amino-9H-purin-9-yl)-3-(hydroxymethyl)-,(1S,2R,3R,5R)-

SMILES:

O[C@@H]1[C@H](O)[C@@H](CO)C[C@H]1N2C3=NC=NC(N)=C3N=C2

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