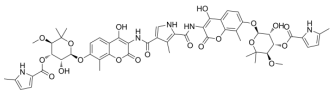
Coumermycin A1

Cat. No.: HY-N7452

CAS No.: 4434-05-3

Molecular Formula: $C_{55}H_{59}N_5O_{20}$

Molecular Weight: 1110.08



Target: Bacterial; JAK; Orthopoxvirus

Pathway: Anti-infection; Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt

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 (45.04 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.9008 mL	4.5042 mL	9.0084 mL
	5 mM	0.1802 mL	0.9008 mL	1.8017 mL
	10 mM	0.0901 mL	0.4504 mL	0.9008 mL

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

BIOLOGICAL ACTIVITY

Description

Coumermycin A1 is a JAK2 signal activator. Coumermycin A1 inhibits DNA Gyrase which thereby inhibits cell division in bacteria. Coumermycin A1 shows anti-orthopoxvirus activity.

In Vitro

Coumermycin A1-induced-JAK2 signal activation increases the mRNA level of SCOS2, but reducea leptin receptor mRNA level[1].

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

CUSTOMER VALIDATION

- Int Immunopharmacol. 2022 Aug 3;111:109107.
- Inflammation. 2023 Oct 21.

- Eur J Pharmacol. 2023 Jun 28;954:175876.
- Tissue Cell. 2023 Jun 17, 102145.
- Research Square Print. 2022 Aug.

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REFERENCES

[1]. Donald F Smee, et al. Progress in the discovery of compounds inhibiting orthopoxviruses in animal models. Antivir Chem Chemother. 2008;19(3):115-24.

[2]. Tiantian Zhang, et al. SOCS2 Inhibits Mitochondrial Fatty Acid Oxidation via Suppressing LepR/JAK2/AMPK Signaling Pathway in Mouse Adipocytes. Research Article.

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