Ochromycinone

Cat. No.: HY-18061

CAS No.: 111540-00-2

Molecular Formula: $C_{19}H_{14}O_4$

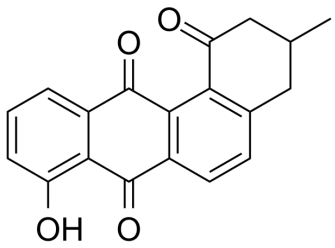
Molecular Weight: 306.31

Target: STAT; Bacterial

Pathway: JAK/STAT Signaling; Stem Cell/Wnt; 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 : 16.67 mg/mL (54.42 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2647 mL	16.3233 mL	32.6467 mL
	5 mM	0.6529 mL	3.2647 mL	6.5293 mL
	10 mM	0.3265 mL	1.6323 mL	3.2647 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.67 mg/mL (5.45 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ochromycinone ((Rac)-STA-21) is a natural antibiotic and a STAT3 inhibitor. Ochromycinone can inhibits STAT3 DNA binding activity, STAT3 dimerization. Ochromycinone has anticancer and antimicrobial activity[1][2].

IC_{50} & Target

STAT3

In Vitro

STA-21 inhibits STAT3 DNA binding activity, STAT3 dimerization, and STAT3-dependent luciferase activity. Moreover, STA-21 reduces the survival of breast carcinoma cells with constitutive STAT3 signaling but has minimal effect on the cells in which constitutive STAT3 signaling is absent[2].

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

CUSTOMER VALIDATION

- Nutrients. 2016 May 11;8(5). pii: E280.

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REFERENCES

[1]. Song H, et al. A low-molecular-weight compound discovered through virtual database screening inhibits Stat3 function in breast cancer cells. Proc Natl Acad Sci U S A. 2005 Mar 29;102(13):4700-5.

[2]. Nataliya I. Kalinovskaya, et al. New Angucyclinones from the Marine Mollusk Associated Actinomycete Saccharothrix espanaensis An 113. Natural product communications. 2008, 3(10):1611-1616.

Caution: Product has not been fully validated for medical applications. For research use only.

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