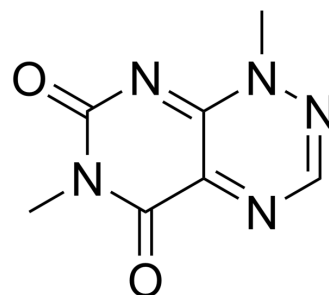


Toxoflavin

Cat. No.:	HY-100760	
CAS No.:	84-82-2	
Molecular Formula:	C ₇ H ₇ N ₅ O ₂	
Molecular Weight:	193.16	
Target:	β-catenin; Bacterial; Antibiotic	
Pathway:	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 : 25 mg/mL (129.43 mM; Need ultrasonic)
 H₂O : 10 mg/mL (51.77 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	5.1771 mL	25.8853 mL	51.7706 mL
	5 mM	1.0354 mL	5.1771 mL	10.3541 mL
	10 mM	0.5177 mL	2.5885 mL	5.1771 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 100 mg/mL (517.71 mM); Clear solution; Need ultrasonic and warming and heat to 60°C
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (12.94 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (12.94 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (12.94 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Toxoflavin (Xanthothricin) is an antagonist of transcription factor 4 (TCF4)/β-catenin complex, also acts as an inhibitor of KDM4A, with antitumor activity^{[1][2]}. Antibiotic properties.

IC₅₀ & Target

TCF4/β-catenin^[1], KDM4A^[2]

In Vitro

Toxoflavin (Xanthothricin) exhibits dose-dependent cytotoxicity against the 3 hepatoma cell lines, and with IC₅₀s of 0.66 μM, 0.36 μM and 0.98 μM for Hep40 cells, HepG2 cells and Huh7 cells respectively^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Comput Struct Biotech. 2023 Jan 16.
- Mol Microbiol. 2022 May 5.
- bioRxiv. 2021 Dec.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Wei W, et al. Small molecule antagonists of Tcf4/beta-catenin complex inhibit the growth of HCC cells in vitro and in vivo. *Int J Cancer*. 2010 May 15;126(10):2426-36.
- [2]. Franci G, et al. Identification and characterization of PKF118-310 as a KDM4A inhibitor. *Epigenetics*. 2017 Mar 4;12(3):198-205.

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

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