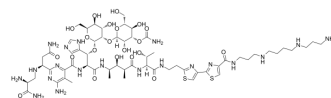


Boanmycin

Cat. No.:	HY-147359
CAS No.:	37293-17-7
Molecular Formula:	C ₆₀ H ₉₆ N ₂₀ O ₂₁ S ₂
Molecular Weight:	1497.66
Target:	Antibiotic; Apoptosis
Pathway:	Anti-infection; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Boanmycin is an antibiotic with antitumor activity that induces cellular senescence and apoptosis ^{[1][2][3]} .
In Vitro	Boanmycin (50-125 µg/mL, 0.5-36 h) can induce apoptosis and block the cell cycle in the G2/M phase in Eca-109 cells ^[2] . Boanmycin (6.7 µg/mL, 24 h) induces cell senescence ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay ^[3]
	Cell Line: Human lung fibroblast cell line IMR90, mouse primary osteoblasts (OBs)
	Concentration: 6.7 µg/mL
	Incubation Time: 24 hours
	Result: Showed a 90% positive number of SA-βgal stained cells in IMR90 cells and 95% in OBs compared to 30% in the control group.
	RT-PCR ^[3]
	Cell Line: Mouse primary osteoblasts (OBs)
	Concentration: 6.7 µg/mL
	Incubation Time: 24 hours
	Result: Increased senescence-associated secretory phenotype (SASP) factor IL-6 expression up to six-fold.
In Vivo	Boanmycin (BAM) (i.p., 10 or 15 mg/kg, twice a week, 5 weeks) can effectively inhibit the growth of tumors in BALB/c nude mice with HT-29, Hce-8693 or CT-26 cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
	Animal Model: BALB/c nude mice with HT-29 or Hce-8693 cells ^[1]
	Dosage: 10 or 15 mg/kg

Administration:	Intraperitoneal injection; twice a week; 5 weeks
Result:	Significantly inhibited tumor growth by 89% at 10 mg/kg and by 92% at 15 mg/kg in mice with HT-29 model, also inhibited tumor growth by 90% at 10 mg/kg and by 92% at 15 mg/kg in mice with Hce-8693 model.
Animal Model:	BALB/c nude mice with CT-26 cells ^[1]
Dosage:	10 mg/kg
Administration:	Intramuscular injection; every second day; 10 times
Result:	Inhibited subcutaneous tumor growth by 88% and cecal tumor by 99%.

REFERENCES

- [1]. Y C Deng, et al. Activity of boanmycin against colorectal cancer. World J Gastroenterol. 2001 Feb;7(1):93-7.
- [2]. Hao Tang, et al. Effect of boanmycin on apoptosis and cell cycle of human esophageal cancer(Eca-109) cells]. Ai Zheng. 2002 Aug;21(8):855-9.
- [3]. Peng Chen, et al. The chemotherapeutic drug boanmycin induces cell senescence and senescence-associated secretory phenotype factors, thus acquiring the potential to remodel the tumor microenvironment. Anticancer Drugs. 2016 Feb;27(2):84-8.
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Caution: Product has not been fully validated for medical applications. For research use only.

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