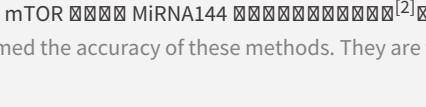


Actinomycin X2

Cat. No.:	HY-125747
CAS No.:	18865-48-0
Molecular Formula:	C ₆₂ H ₈₄ N ₁₂ O ₁₇
Molecular Weight:	1269.4
Target:	Bacterial; Antibiotic; Apoptosis
Pathway:	Anti-infection; Apoptosis
Storage:	Sealed storage, away from moisture
	Powder -80°C 2 years
	-20°C 1 year
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

BIOLOGICAL ACTIVITY

Description	Actinomycin X2 (Actinomycin V), produced by many <i>Streptomyces</i> sp., shows strong inhibition of MRSA with a minimum inhibitory concentration (MIC) value of 0.25 µg/mL. Actinomycin X2 can be used for cancer and bacterial infection ^{[1][2]} .																
In Vitro	<p>Actinomycin X2 (1, 10 µM, 24 h) ^[2]</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[2]</p> <table> <tr> <td>Cell Line:</td> <td>PC-3</td> </tr> <tr> <td>Concentration:</td> <td>1, 10 µM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited the levels of mTOR, PI3K, and Akt. Increased the level of PTEN.</td> </tr> </table> <p>Apoptosis Analysis^[2]</p> <table> <tr> <td>Cell Line:</td> <td>PC-3</td> </tr> <tr> <td>Concentration:</td> <td>1, 10 µM</td> </tr> <tr> <td>Incubation Time:</td> <td>24, 48 h</td> </tr> <tr> <td>Result:</td> <td>Increased the apoptotic rate.</td> </tr> </table>	Cell Line:	PC-3	Concentration:	1, 10 µM	Incubation Time:	24 h	Result:	Inhibited the levels of mTOR, PI3K, and Akt. Increased the level of PTEN.	Cell Line:	PC-3	Concentration:	1, 10 µM	Incubation Time:	24, 48 h	Result:	Increased the apoptotic rate.
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CUSTOMER VALIDATION

- Phytomedicine. 2022 Feb 14;99:153994.

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REFERENCES

- [1]. Liu J, et al. Apoptosis of human prostate cancer cells induced by marine actinomycin X2 through the mTOR pathway compounded by MiRNA144. *Anticancer Drugs*. 2016 Mar;27(3):156-63.
- [2]. Zhiyu Chen, et al. Anti-MRSA Activity of Actinomycin X 2 and Collismycin A Produced by *Streptomyces globisporus*WA5-2-37 From the Intestinal Tract of American Cockroach (*Periplaneta americana*). *Front Microbiol*. 2020 Apr 7;11:555.
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Caution: Product has not been fully validated for medical applications. For research use only.

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