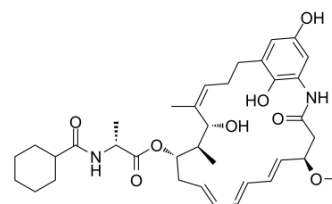


## Ansatrienin B

Cat. No.:	HY-122306
CAS No.:	82189-04-6
Molecular Formula:	C <sub>36</sub> H <sub>50</sub> N <sub>2</sub> O <sub>8</sub>
Molecular Weight:	638.79
Target:	Antibiotic; Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the COA.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Ansatrienin B (Mycotrienin II) is an ansamycin <b>antibiotic</b> isolated from Streptomyces. Ansatrienin B is active against fungi and yeasts, but inactive against bacteria. Ansatrienin B displays antitumor antibiotic activity and can be used as an <b>ADC Toxin</b> <sup>[1][2]</sup> .
<b>In Vitro</b>	<p>Ansatrienin B exhibits antimicrobial activities of <i>Penicillium chrysogenuin</i> IAM 7106, <i>Mucor pusillus</i> IAM 6122, <i>Rhizopus delemar</i> IAM 6015, <i>Saccharomyces cerevisiae</i> IFO 0304, <i>Candida utilis</i> IFO 0396 and <i>Candida krusei</i> IFO 0590 with MIC values of 12.5 µg/ml, 12.5 µg/ml, 12.5 µg/ml, 8.0 µg/ml, 4.0 µg/ml, 4.0 µg/ml, and 4.0 µg/ml, respectively<sup>[1]</sup>.</p> <p>Ansatrienin B inhibits the release of <sup>45</sup>calcium into the culture medium by fetal rat long bones with an apparent halfmaximal inhibition (IC<sub>50</sub>) value of 21 nM<sup>[2]</sup>.</p> <p>Ansatrienin B inhibits the translation of the protein synthesis stage by specific inhibition of L-leucine incorporation (IC<sub>50</sub>=58 nM) in A549 cells). At the same time, it also inhibits TNF-α-induced expression of ICAM-1 with an IC<sub>50</sub> of 300 nM<sup>[3]</sup>.</p>
<b>In Vivo</b>	Ansatrienin B (intraperitoneal injection; once daily; 6 days) is against P-388 -injected mouse tumor growth. The LD <sub>50</sub> value in mice of MTN-II is 80 mg/kg in CDF1 male mice <sup>[2]</sup> .

### REFERENCES

- [1]. M Sugita, et al. Studies on Mycotrienin Antibiotics, a Novel Class of Ansamycins. I. Taxonomy, Fermentation, Isolation and Properties of Mycotrienins I and II. *J Antibiot* (Tokyo). 1982 Nov;35(11):1460-6.
- [2]. D Feuerbach, et al. Mycotrienins. A New Class of Potent Inhibitors of Osteoclastic Bone Resorption. *J Biol Chem*. 1995 Oct 27;270(43):25949-55.
- [3]. Yuriko Yamada, et al. Mycotrienin II, a Translation Inhibitor That Prevents ICAM-1 Expression Induced by Pro-Inflammatory Cytokines. *J Antibiot* (Tokyo). 2011 May;64(5):361-6.

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

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