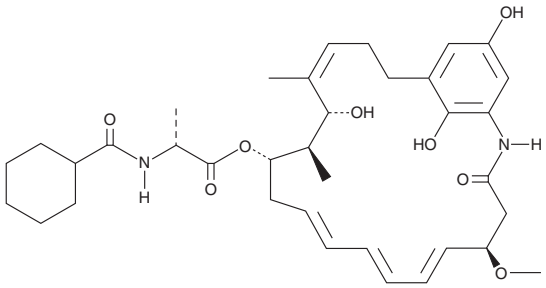
PRODUCT INFORMATION

Ansatrienin B

Item No. 21996

CAS Registry No.:	82189-04-6
Formal Name:	N-(cyclohexylcarbonyl)-D-alanine, (5R,6E,8E,10E,13S,14R,15R,16Z)-15,22,24-trihydroxy-5-methoxy-14,16-dimethyl-3-oxo-2-azabicyclo[18.3.1]tetracosa-1(24),6,8,10,16,20,22-heptaen-13-yl ester
Synonyms:	Mycotrienin II, SDZ-115 962
MF:	$C_{36}H_{50}N_2O_8$
FW:	638.8
Purity:	≥95%
Supplied as:	A powder
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ansatrienin B is supplied as a powder. A stock solution may be made by dissolving the ansatrienin B in the solvent of choice, which should be purged with an inert gas. Ansatrienin B is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

Description

Ansatrienin B is an ansamycin antibiotic and antifungal agent first isolated from *S. collinus* and *S. rishiriensis*.[1,2] In fetal rat long bones, it is an inhibitor of parathyroid hormone-induced calcium release (IC_{50} = 21 nM), which is a measure of bone resorption, and $pp60^{c\text{-}src}$ kinase (IC_{50} = 50 nM).[3] It is an inhibitor of translation at the protein synthesis stage by specific inhibition of L-leucine incorporation (IC_{50} = 58 nM in A549 cells).[4] It also inhibits TNF-α-induced expression of intercellular adhesion molecule-1 (ICAM-1; IC_{50} = 300 nM). Early *in vitro* studies showed that ansatrienin B potentiates the chemotherapeutic action of 5-fluorouracil (Item No. 14416), cisplatin (Item No. 13119), bleomycin (Item No. 13877), mitomycin C (Item No. 11435), and 6-mercaptopurine.[5] Ansatrienin B is a hydroquinone form of ansatrienin A (Item No. 21995).[2]

References

1. Damberg, M., Russ, P., and Zeeck, A. Die konstitution der fungistatischen ansamycin-antibiotica ansatrienin A und B. *Tetrahedron Lett.* **23(1)**, 59-62 (1982).
2. Sugita, M., Natori, Y., Sasaki, T., *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)* **35(11)**, 1460-1466 (1982).
3. Feuerbach, D., Waelchli, R., Fehr, T., *et al.* Mycotrienins. A new class of potent inhibitors of osteoclastic bone resorption. *J. Biol. Chem.* **270(43)**, 25949-25955 (1995).
4. Yamada, Y., Tashiro, E., Taketani, S., *et al.* Mycotrienin II, a translation inhibitor that prevents ICAM-1 expression induced by pro-inflammatory cytokines. *J. Antibiot. (Tokyo)* **64(5)**, 361-366 (2011).
5. Kuwano, M., Ikezaki, K., Mamizuka, K., *et al.* Potentiation of mitomycin C, 6-mercaptopurine, bleomycin, *cis*-diamminedichloroplatinum and 5-fluorouracil by mycotrienins and mycotrienols. *Gan.* **74(5)**, 759-766 (1983).

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