

FT-RM406

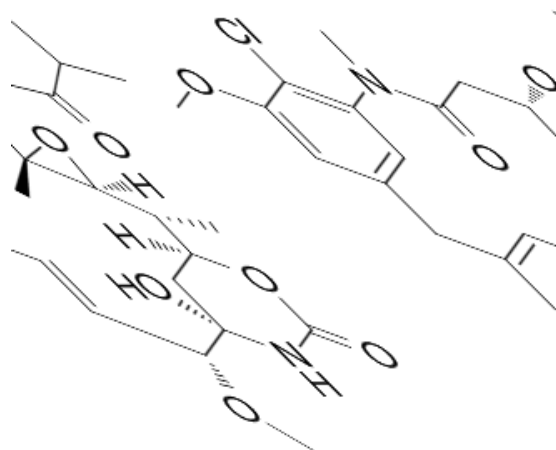


Ansamitocin P-3

Maytansine analog which displays potent cytotoxicity against the human solid tumor cell lines A-549 and HT-29; Antibody drug conjugate cytotoxin.

Product Description

Catalog #: ROM406, 5mg
Name : **Ansamitocin P-3**
 Syn.: Antibiotic C 15003P3; Maytansinol butyrate; C15003P3
 CAS: 66584-72-3
Properties : Structure: C₃₂H₄₃CIN₂O₉
 (physical) MW: 635.14 g/mol
 Solubility :10 mM in DMSO
Storage : Store in a tightly closed container, at a temperature of 2-8°C



For Research Use Only

Technical and Scientific Information

Ansamitocin P-3, a potent anti-tumor maytansinoid found *Actinosynnema pretiosum*, is a maytansine analog which displays potent cytotoxicity against the human solid tumor cell lines A-549 and HT-29.

IC50 value: 0.015 ng/ml (Antiproliferative activity for primary human endothel cells) [1]

Target: Microtubule; ADCs cytotoxin

in vitro: Linear calibration curves were obtained in the range 1-500 ng/mL using 0.2 mL rat plasma. The within-day coefficients of variation (CVs) were 12.9, 6.7, and 5.5% and the between-day CVs were 10.4, 6.5, and 6.4% (all n = 5) at 1, 10, and 200 ng/mL, respectively [2]. Ansamitocin P-3 showed potent cytotoxicity against the human solid tumor cell lines A-549, HT-29 [3].

in vivo: The major pathway of ansamitocin P-3 metabolism in human liver microsomes appears to be demethylation at C-10. The rate of metabolism of ansamitocin P-3 was different in rat and human liver microsomes. About 20% of ansamitocin P-3 was converted to its metabolites in rat liver microsomes and about 70% in human liver microsomes under the same conditions. Additionally, 10-O-demethylated ansamitocin P-3 was also detected in the urine after i.v. bolus administration of ansamitocin P-3 to Sprague-Dawley male rats [4].

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Volume(DMSO) Concentration	Mass	1 mg	5 mg	10 mg
1 mM		1.5745 mL	7.8723 mL	15.7446 mL
5 mM		0.3149 mL	1.5745 mL	3.1489 mL
10 mM		0.1574 mL	0.7872 mL	1.5745 mL

References

- [1]. Axel Meyer, *et al.* Chemoenzymatic Approaches toward Dechloroansamitocin P-3. *Org. Lett.*, 2007, 9 (8), pp 1489-1492.
- [2]. Liu Z, *et al.* An API LC/MS/MS quantitation method for ansamitocin P-3 (AP3) and its preclinical pharmacokinetics. *J Pharm Biomed Anal.* 2004 Nov 19;36(4):815-21.
- [3]. Suwanborirux K, *et al.* Ansamitocin P-3, a maytansinoid, from *Claopodium crispifolium* and *Anomodon attenuatus* or associated actinomycetes. *Experientia.* 1990 Jan 15;46(1):117-20.
- [4]. Liu Z, *et al.* Metabolism studies of the anti-tumor agent maytansine and its analog ansamitocin P-3 using liquid chromatography/tandem mass spectrometry. *J Mass Spectrom.* 2005 Mar;40(3):389-99.

Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>.
Please inquire for higher quantities (availability, shipment conditions).

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