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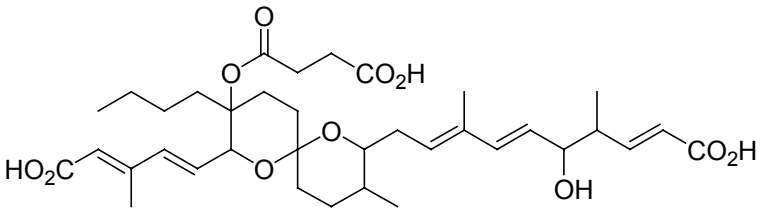
PRODUCT DATA SHEET

Reveromycin A

Code: **BIA-R1078**

Pack sizes: **0.25 mg, 1.0 mg**



Synonyms :

Specifications

CAS #	:	**134615-37-5**
Molecular Formula	:	**$C_{36}H_{52}O_{11}$**
Molecular Weight	:	**660.8**
Source	:	***Streptomyces* sp. MST-AS5344**
Appearance	:	**Tan Lyophilisate**
Purity	:	**> 99% by HPLC**
Long Term Storage	:	**–20°C**
Solubility	:	**Soluble in ethyl acetate, ethanol, methanol, DMF or DMSO. Avoid acidic conditions.**

Application Notes

Reveromycin A, the dominant analogue of a complex of spiroketals isolated from a *Streptomyces* sp., is an inhibitor of the mitogenic activity of epidermal growth factor (EGF). It is a G1 phase cell cycle inhibitor, selectively inhibiting isoleucyl-tRNA synthetase. Reveromycin A displays antiproliferative behaviour against human cell lines KB and K562, as well as potent antifungal activity. More recently it has been shown to induce apoptosis in osteoclasts thus inhibiting bone resorption.

References

1. Reveromycin A, an agent for osteoporosis, inhibits bone resorption by inducing apoptosis specifically in osteoclasts. Woo J.T. et al. *Proc. Natl. Acad. Sci. U.S.A*. **2006**, 103, 4729.
2. Reveromycin A inhibits osteolytic bone metastasis of small-cell lung cancer cells, SBC-5, through an antiosteoclastic activity. Muguruma H. et al. *Clin. Cancer Res*. **2005**, 11, 8822.
3. Identification of *Saccharomyces cerevisiae* isoleucyl-tRNA synthetase as a target of the G1-specific inhibitor Reveromycin A. Miyamoto Y. et al. *J. Biol. Chem.* **2002**, *277*, 28810.
4. Reveromycins, new inhibitors of eukaryotic cell growth. II. Biological activities. Takahashi H. et al. *J. Antibiot.* **1992**, *45*, 1414.

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