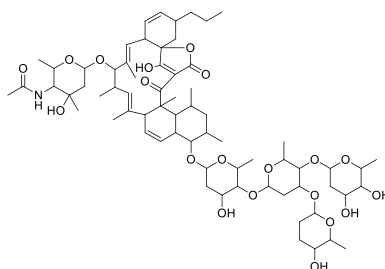


Saccharocarcin B

Code No.: **BIA-S1135**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms :

Specifications

CAS #	: 158475-33-3
Molecular Formula	: C ₆₈ H ₁₀₃ NO ₂₀
Molecular Weight	: 1254.6
Source	: <i>Amycolatopsis</i> sp.
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.

Application Notes

Saccharocarcin B is an unusual tetronic acid structurally related to kijanimicin, chlorothricin, tetrocarcins and versipelostatin, which has pronounced activity against Gram positive bacteria and *Chlamydia trachomatis*. Limited availability has restricted further investigation of this metabolite, however several members of this class have received considerable literature focus. Versipelostatin inhibits transcription from the promoter of GRP78, a gene that is activated as part of a stress signalling pathway under glucose deprivation resulting in unfolded protein response (UPR), causing death of glucose-deprived cells. Tetrocarcin A appears to target the phosphatidylinositide-3'-kinase/Akt signalling pathway.

References

1. A family of novel macrocyclic lactones, the saccharocarcins produced by *Saccharothrix aerocolonigenes* subsp. *antibiotica*. I. Taxonomy, Fermentation, Isolation, and Biological Properties. Horan A.C. et al., *J. Antibiot.* 1997, 50, 119.
2. A family of novel macrocyclic lactones, the saccharocarcins produced by *Saccharothrix aerocolonigenes* subsp. *antibiotica*. II. Physico-chemical Properties and Structure Determination. Hegde V.R. et al., *J. Antibiot.* 1997, 50, 126.
3. Effect on tumor cells of blocking survival response to glucose deprivation. Park H.R. *J. Natl. Cancer. Inst.* 2004, 96, 1300.
4. Apoptosis and inactivation of the PI3-kinase pathway by tetrocarcin A in breast cancers. Nakajima H. *Biochem Biophys Res Commun.* 2007, 356, 260.