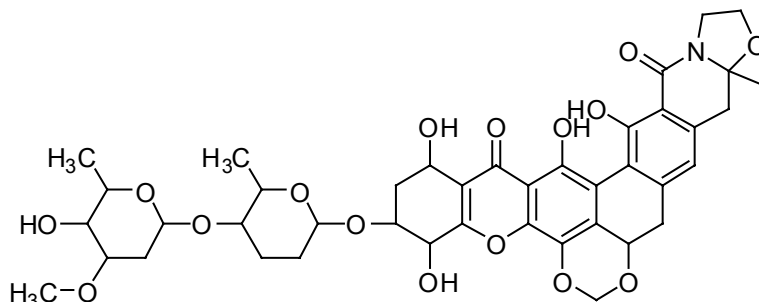


Kigamicin C

Code: **BIA-K1116**

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



Synonyms :

Specifications

CAS #	: 680571-51-1
Molecular Formula	: C₄₁H₄₇NO₁₆
Molecular Weight	: 809.8
Source	: <i>Amycolatopsis</i> sp. MST-AS4724
Appearance	: Pale yellow solid
Purity	: > 99% by HPLC
Long Term Storage	: -20°C, protect from light
Solubility	: Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Kigamicin C was discovered by an anti-austerity strategy targeting cancer cells' tolerance to starvation. It selectively kills PANC-1 cells (a pancreatic cell line) at concentrations 100 times lower under nutrient starved conditions than in normal conditions. The mechanism of action is proposed to be via blocking of the activation of PKB/Akt caused by the withdrawal of nutrients. It is active *in vivo* against a human pancreatic cancer xenograft model. Kigamicin C also inhibits the growth of Gram-positive bacteria including MRSA strains but is not active against Gram-negative bacteria.

References

1. Kigamicin D, a novel anticancer agent based on a new anti-austerity strategy targeting cancer cells' tolerance to nutrient starvation. Lu J. et al. *Cancer Sci.* **2004**, 95, 547.
2. Kigamicins, novel antitumor antibiotics. II. Structure determination. Kunimoto S. et al. *J. Antibiot.* **2003**, 56, 1012.
3. Kigamicins, novel antitumor antibiotics. I. Taxonomy, isolation, physico-chemical properties and biological activities. Kunimoto S. et al. *J. Antibiot.* **2003**, 56, 1004.