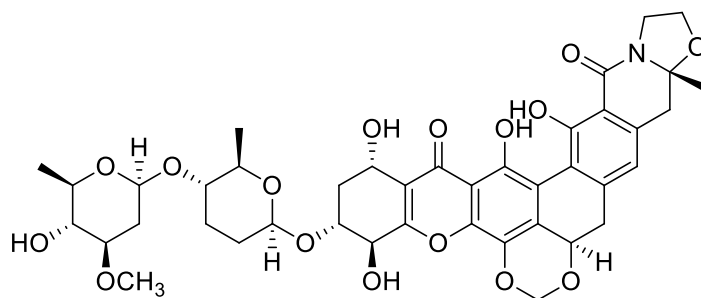


## Kigamicin C

Code No.: **BIA-K1116**

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



Synonyms :

### Specifications

CAS #	: <b>680571-51-1</b>
Molecular Formula	: <b>C<sub>41</sub>H<sub>47</sub>NO<sub>16</sub></b>
Molecular Weight	: <b>809.8</b>
Source	: <b><i>Amycolatopsis</i> sp.</b>
Appearance	: <b>Pale yellow powder</b>
Purity	: <b>&gt;95% by HPLC</b>
Long Term Storage	: <b>-20°C</b>
Solubility	: <b>Soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.</b>

### 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 blockade of aPKB/Akt activation, 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, 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.