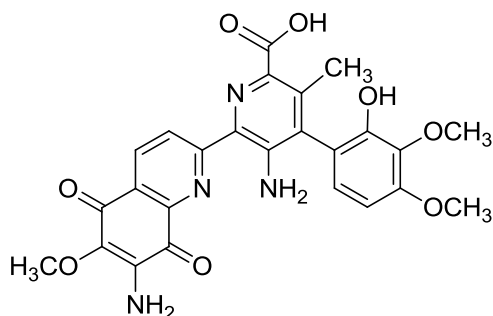


## Streptonigrin

Code No.: **BIA-S1107**

Pack sizes: **1 mg, 5 mg**



Synonyms : Bruneomycin, Nigrin, Rufocromomycin, Valacidin, RP 5278

### Specifications

CAS #	: 3930-19-6
Molecular Formula	: C <sub>25</sub> H <sub>22</sub> N <sub>4</sub> O <sub>8</sub>
Molecular Weight	: 506.5
Source	: <i>Streptomyces</i> sp.
Appearance	: Brown black solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in DMF or DMSO. Moderately soluble in methanol or ethanol. Poor water solubility.

### Application Notes

Streptonigrin is an unusual aminosquinone with broad biological activity against bacteria, fungi, nematodes, viruses and tumor cells. Streptonigrin acts as a bioreductive agent, highly dependent on interactions with metal ions, notably iron, and plays an important role in free radical production through redox cycling of NAD(P)H:quinone oxidoreductase (NQO1).

### References

1. Targeting NAD(P)H:quinone oxidoreductase (NQO1) in pancreatic cancer. Lewis A.M. Mol. Carcinogen. 2005, 43, 215.
2. Enhanced cytotoxicity of bioreductive antitumor agents with dimethyl fumarate in human glioblastoma cells. Gu B. & DeAngelis L.M. Anticancer Drugs 2005, 16, 167.
3. The effect of metal ions on the electrochemistry of the antitumor antibiotic streptonigrin. Anderberg P.I. J. Inorg. Biochem. 2004, 98, 720.