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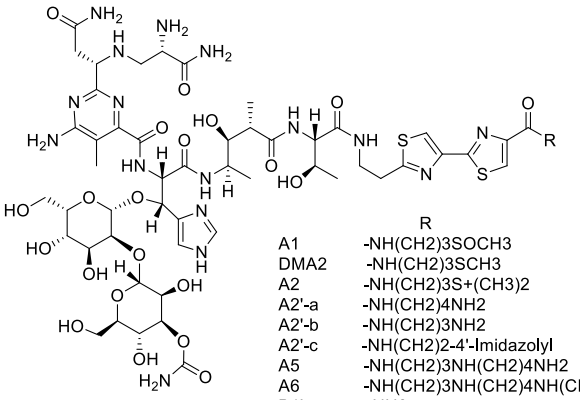
PRODUCT DATA SHEET

Bleomycin complex

Code No.: **BIA-B1203**

Pack sizes: **10 mg, 50 mg**



	R
A1	-NH(CH2)3SOCH3
DMA2	-NH(CH2)3SCH3
A2	-NH(CH2)3S+(CH3)2
A2'-a	-NH(CH2)4NH2
A2'-b	-NH(CH2)3NH2
A2'-c	-NH(CH2)2-4'-Imidazolyl
A5	-NH(CH2)3NH(CH2)4NH2
A6	-NH(CH2)3NH(CH2)4NH(CH2)3NH2
B1'	-NH2
B2	-NH(CH2)4NH2C(NH)NH2
B4	-NH(CH2)4NH2C(NH)NH(CH2)4NHC(NH)NH2

Synonyms : Blenoxane, Bleo

Specifications

CAS #	:	**9041-93-4**
Molecular Formula	:	**$C_{55}H_{84}N_{17}O_{21}S_3$ (for A_2)**
Molecular Weight	:	**1415.6 (for A2)**
Source	:	***Streptomyces* sp.**
Appearance	:	**Off-white solid**
Purity	:	**>98% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in water and methanol, with moderate ethanol solubility.**

Application Notes

Bleomycin is a complex of 11 glycopeptide antitumor antibiotics originally isolated from Streptomyces verticillus in 1972. The dominant components of the complex are bleomycin A2 and B2, which typically represent >90% of the total weight. Bleomycins have found clinical application in the treatment of a range of tumors. Bleomycins act by intercalation of DNA and RNA. In the presence of oxygen and metal ions, notably copper and iron, bleomycins form a pseudo-enzyme that induces DNA cleavage.

References

1. Chemistry of bleomycin. IX. The structures of belomycin and phleomycin. Takita T. et al., J. Antibiot. 1972, 25, 755.
2. Structural basis for the deoxyribonucleic acid affinity of bleomycins. Kross J. et al., Biochemistry 1982, 21, 3711.
3. Specificity of deoxyribonucleic acid cleavage by bleomycin, phleomycin and tallysomycin. Kross et al., Biochemistry 1982, 21, 4310.

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