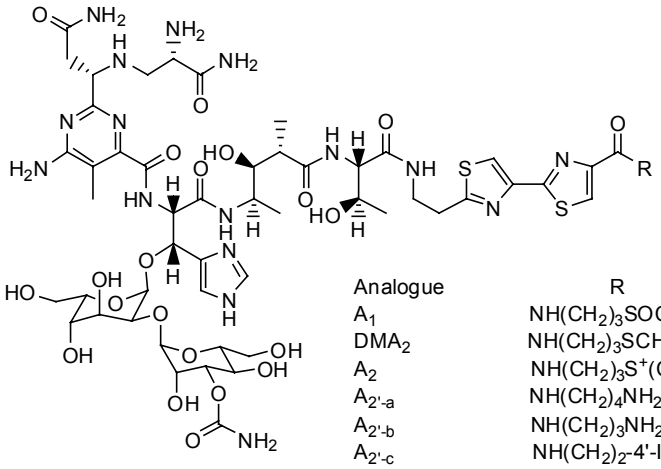
bioaustralis
fine chemicals

PRODUCT DATA SHEET

Bleomycin complex (as sulfate salts)

Code: **BIA-B1203**

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



$A_2 + B_2$ >90%

Analogue	R
A_1	$NH(CH_2)_3SOCH_3$
DMA_2	$NH(CH_2)_3SCH_3$
A_2	$NH(CH_2)_3S^+(CH_3)_2$
$A_{2'\text{-}a}$	$NH(CH_2)_4NH_2$
$A_{2'\text{-}b}$	$NH(CH_2)_3NH_2$
$A_{2'\text{-}c}$	$NH(CH_2)_2$-4'-Imidazolyl
A_5	$NH(CH_2)_3NH(CH_2)_4NH_2$
A_6	$NH(CH_2)_3NH(CH_2)_4NH(CH_2)_3NH_2$
$B_{1'}$	NH_2
B_2	$NH(CH_2)_4NH_2C(NH)NH_2$
B_4	$NH(CH_2)_4NH_2C(NH)NH(CH_2)_4NHC(NH)NH_2$

Synonyms : **Blenoxane, Bleo, Blexane**

Specifications

CAS #	:	**9041-93-4**
Molecular Formula	:	**$C_{55}H_{84}N_{17}O_{21}S^+.H_2SO_4$ (based on bleomycin A_2 as the major component)**
Molecular Weight	:	**1513.6**
Source	:	**Streptomyces sp. MST-AS4458**
Appearance	:	**Off-white solid**
Purity	:	**> 99%**
Long Term Storage	:	**- 20°C**
Solubility	:	**Soluble in water, 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 A_2 and B_2 and typically represent >90% of the total weight with the remainder comprising the minor analogues. 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.

Building C, 28-54 Percival Road, Smithfield NSW 2164, AUSTRALIA
Tel: 61 2 9757 4515 Fax: 61 2 9757 2586 Web: www.bioaustralis.com Email: info@bioaustralis.com