



genespin

DATA SHEET

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> Bleomycin Sulphate

cat. no.	amount	note
STS-BLE015	15mg	powder

Bleomycin sulfate is a mixture of glycopeptide antibiotics containing primarily Bleomycin A2 (70%) and B2 (30%) produced by the bacterium *Streptomyces verticillus*. Bleomycin glycopeptides differ from one another in the terminal amine and show varying biological activity.

Bleomycin sulfate binds to DNA, inhibits DNA synthesis, and causes single strand scission of DNA at specific base sequences, both *in vivo* and *in vitro*. DNA cleavage by bleomycin depends on oxygen and one metal ion, such as copper or iron, binding. It is believed that bleomycin chelates metal ions (primarily iron) producing a pseudoenzyme that reacts with oxygen to produce superoxide and hydroxide free radicals that cleave DNA. In addition, these complexes also mediate lipid peroxidation and oxidation of other cellular molecules.

Bleomycin also has the ability to cleave RNA, though to a lesser degree and in a more highly selective fashion. It also acts as an inducer and regulator of apoptosis in a variety of cells and inhibits tumor angiogenesis.

Molecular Weight

Approx 1400

Solubility

Bleomycin Sulfate is soluble in water (20 mg/mL) yielding a clear, colorless solution.

Storage

Store dry at 0-5°C.

FOR RESEARCH USE ONLY