bio-techne
TOCRIS

Print Date: Feb 16th 2026

Certificate of Analysis

www.tocris.com

Product Name: **Bleomycin sulfate** **Catalog No.: 7147** **Batch No.: 1**

CAS Number: 9041-93-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{55}H_{84}N_{17}O_{21}S_3.HSO_4$ (for A_2)

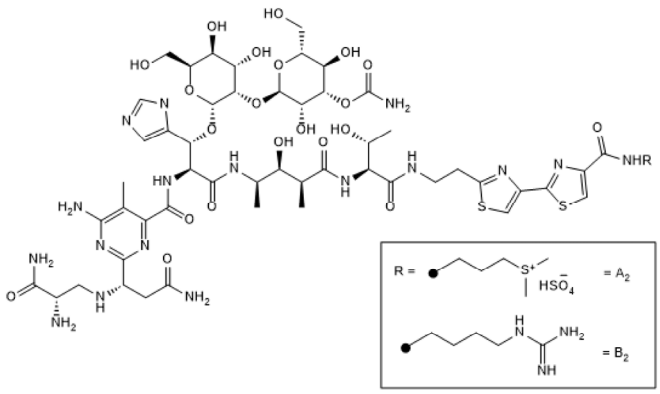
Batch Molecular Weight: 1512.6

Physical Appearance: White solid

Solubility: DMSO to 20 mg/ml
water to 20 mg/ml

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 91.4% purity

Mass Spectrum: Consistent with structure

Potency: 1.6 U/mg

Bleomycin A2: 65.6%

Bleomycin B2: 25.9%

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Product Name: **Bleomycin sulfate** **Catalog No.: 7147** **Batch No.: 1**

CAS Number: 9041-93-4

Description:

Bleomycin sulfate is a glycopeptide antibiotic produced by Streptomyces verticillus. It inhibits DNA synthesis and causes single and double-strand breaks at specific base sequences in intracellular DNA of bacterial and mammalian cells. It also acts as an inducer and regulator of apoptosis and inhibits tumor angiogenesis. It is an anticancer agent for squamous cell carcinomas (SCC) with IC_{50} = 4 nM in UT-SCC-19A cells. In vivo, Bleomycin sulfate induces pulmonary inflammation and fibrosis in lung injury models (mice). Bleomycin sulfate contains two main components: 1) Bleomycin A_2 hemisulfate, $C_{55}H_{84}N_{17}O_{21}S_3.HSO_4$, molecular weight = 1512.62... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

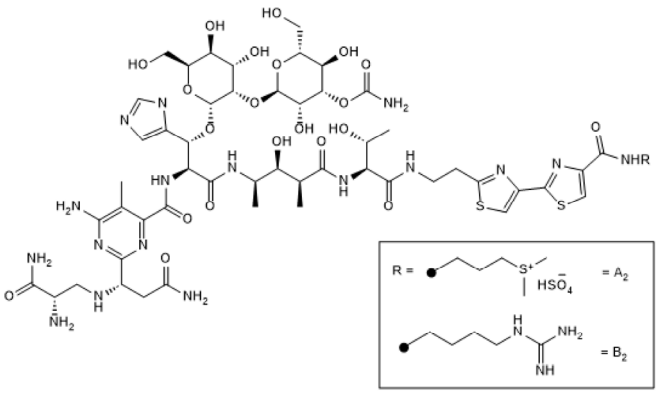
Batch Molecular Formula: $C_{55}H_{84}N_{17}O_{21}S_3.HSO_4$ (for A_2)

Batch Molecular Weight: 1512.6

Physical Appearance: White solid

Minimum Purity: ≥90%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 20 mg/ml
water to 20 mg/ml

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Liu *et al* (2018) Telomere shortening activates TGF-β/Smads signaling in lungs and enhances both lipopolysaccharide and bleomycin-induced pulmonary fibrosis. Pharmacol.Sin ***39*** 1735. PMID: 29925920.

Lin *et al* (2015) Expression of human carcinoembryonic antigen-related cell adhesion molecule 6 and alveolar progenitor cells in normal and injured lungs of transgenic mice. Physiol.Rep ***3***. PMID: 26702074.

Banerjee *et al* (2012) Characterization of lung stem cell niches in a mouse model of bleomycin-induced fibrosis. Stem Cell Res.Ther. ***3***. PMID: 22643035.

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