

# PRODUCT INFORMATION



## Capreomycin (sulfate)

Item No. 19469

**CAS Registry No.:** 1405-37-4  
**Formal Name:** (2S)-2,5-diamino-N-(((2S,5R,11S,15R,Z)-15-amino-11-(2-amino-3,4,5,6-tetrahydropyrimidin-4-yl)-2-(hydroxymethyl)-3,6,9,12,16-pentaaxo-8-(ureidomethylene)-1,4,7,10,13-pentaazacyclohexadecan-5-yl)methyl)pentanamide, monosulfate

**MF:** C<sub>24</sub>H<sub>42</sub>N<sub>14</sub>O<sub>8</sub> • H<sub>2</sub>SO<sub>4</sub>

**FW:** 752.8

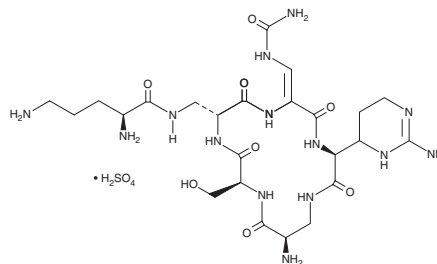
**Purity:** ≥90%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



### Laboratory Procedures

Capreomycin (sulfate) is supplied as a solid. Capreomycin (sulfate) is soluble in water. The solubility of capreomycin (sulfate) in water is approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Capreomycin is a polypeptide antibiotic originally isolated from *S. capreolus*.<sup>1</sup> It is active against *M. tuberculosis* (MIC = 10 µg/ml). Capreomycin binds to both the 30S and 50S ribosomal subunits, inhibiting protein synthesis.<sup>2</sup> It increases survival and decreases lung necrosis in mice infected with the streptomycin-resistant *M. tuberculosis* strain H37Rv when administered at doses ranging from 50 to 500 mg/kg.<sup>3</sup> Formulations containing capreomycin have been used in the treatment of multidrug-resistant tuberculosis.

### References

1. Arbex, M.A., de Castro Lima Varella, M., de Siqueira, H.R., *et al.* Antituberculosis drugs: Drug interactions, adverse effects, and use in special situations. Part 2: Second line drugs. *J. Bras. Pneumol.* **36(5)**, 641-656 (2010).
2. Vianna, J.F., Bezerra, K.S., Oliveira, J.I.N., *et al.* Binding energies of the drugs capreomycin and streptomycin in complex with tuberculosis bacterial ribosome subunits. *Phys. Chem. Chem. Phys.* **21(35)**, 19192-19200 (2019).
3. Sutton, W.B., Gordee, R.S., Wick, W.E., *et al.* *In vitro* and *in vivo* laboratory studies on the antituberculous activity of capreomycin. *Ann. N.Y. Acad. Sci.* **135(2)**, 947-959 (1966).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM