

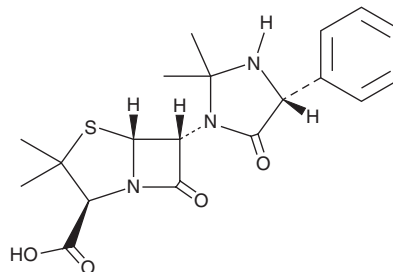
# PRODUCT INFORMATION



## Hetacillin

Item No. 35643

**CAS Registry No.:** 3511-16-8  
**Formal Name:** (2S,5R,6R)-6-((R)-2,2-dimethyl-5-oxo-4-phenylimidazolidin-1-yl)-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid  
**MF:** C<sub>19</sub>H<sub>23</sub>N<sub>3</sub>O<sub>4</sub>S  
**FW:** 389.5  
**Purity:** ≥95%  
**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

Hetacillin is supplied as a solid. A stock solution may be made by dissolving the hetacillin in the solvent of choice, which should be purged with an inert gas. Hetacillin is soluble in DMSO.

### Description

Hetacillin is a prodrug form of the broad-spectrum antibiotic ampicillin (Item Nos. 14417 | 35740).<sup>1</sup> It is converted to ampicillin via hydrolysis. Hetacillin is active against several bacteria, including *E. coli*, *S. typhimurium*, *S. flexneri*, *H. influenzae*, and *S. pneumoniae* (MICs = 2.5, 1.25, 2.5, 0.5, and 0.05 µg/ml, respectively). Intramammary administration of hetacillin increases the cure rate of bacterial infections in dairy cows.<sup>2</sup> Formulations containing hetacillin have been used in the treatment of bovine mastitis.

### References

1. Sutherland, R. and Robinson, O.P.W. Laboratory and pharmacological studies in man with hetacillin and ampicillin. *Br. Med. J.* **2(5555)**, 804-808 (1967).
2. Vasquez, A.K., Nydam, D.V., Capel, M.B., *et al.* Randomized noninferiority trial comparing 2 commercial intramammary antibiotics for the treatment of nonsevere clinical mastitis in dairy cows. *J. Dairy Sci.* **99(10)**, 8267-8281 (2016).

#### 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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