



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# PRODUCT INFORMATION



## Ampicillin (hydrate)

Item No. 35740

**CAS Registry No.:** 7177-48-2  
**Formal Name:** 6-[[[(2R)-2-amino-2-phenylacetyl] amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, trihydrate

**Synonyms:** Aminobenzylpenicillin trihydrate

**MF:** C<sub>16</sub>H<sub>19</sub>N<sub>3</sub>O<sub>4</sub>S • 3H<sub>2</sub>O

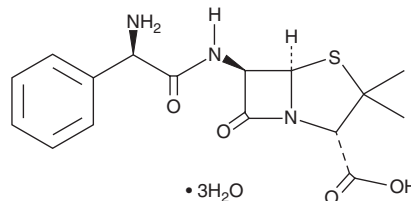
**FW:** 403.5

**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

Ampicillin (hydrate) is supplied as a solid. A stock solution may be made by dissolving the ampicillin (hydrate) in the solvent of choice, which should be purged with an inert gas. Ampicillin (hydrate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ampicillin (hydrate) in these solvents is approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ampicillin (hydrate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of ampicillin (hydrate) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Ampicillin is a broad-spectrum antibiotic with activity against Gram-positive and Gram-negative bacteria, including veterinary isolates of *S. pseudintermedius*, *S. aureus*, *E. coli*, *Pasteurella*, and *S. canis* (MIC<sub>50</sub>s = 0.25, 0.5, 2, 0.12, and 0.25 µg/ml, respectively).<sup>1</sup> *In vivo*, ampicillin (80 mg/kg, i.v.) reduces cough frequency, tachypnea, dyspnea, and fever and increases survival in a baboon (*P. cynocephalus*) model of pneumococcal pneumonia.<sup>2</sup> Formulations containing ampicillin have been used to treat a variety of bacterial infections.

### References

1. Awji, E.G., Damte, D., Lee, S.-J., *et al.* The *in vitro* activity of 15 antimicrobial agents against bacterial isolates from dogs. *J. Vet. Med. Sci.* **74**(8), 1091-1094 (2012).
2. Reyes, L.F., Restrepo, M.I., Hinojosa, C.A., *et al.* A non-human primate model of severe pneumococcal pneumonia. *PLoS One* **11**(11), e0166092 (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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#### 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