

Nafcillin (sodium monohydrate)

Catalog No: tcsc2665



Available Sizes

Size: 1g

Size: 5g



Specifications

CAS No:

7177-50-6

Formula:

$C_{21}H_{23}N_2NaO_6S$

Pathway:

Anti-infection

Target:

Bacterial

Purity / Grade:

>98%

Solubility:

H₂O : 19 mg/mL (41.81 mM; Need ultrasonic and warming)

Observed Molecular Weight:

454.47

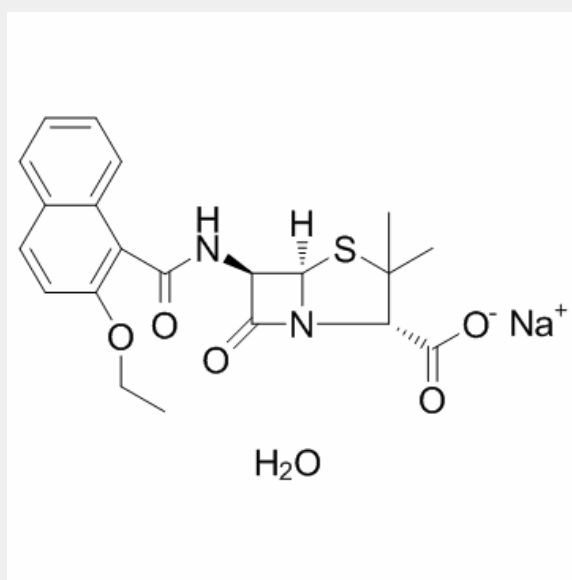
Product Description

Nafcillin sodium monohydrate is a semi-synthetic antibiotic related to penicillin.

Target: Antibacterial

Nafcillin sodium is a narrow-spectrum, beta-lactam antibiotic of the penicillin class. As a beta-lactamase-resistant penicillin, it is used to treat infections caused by Gram-positive bacteria, in particular, species of staphylococci that are resistant to other penicillins.

Nafcillin is considered therapeutically equivalent to oxacillin, although its safety profile is somewhat different. Nafcillin was shown to reversibly inhibit beta-lactamase from *Staphylococcus aureus* PC1 with characteristics indicative of a type A inhibitor [Citri, Samuni & Zyk (1976) Proc. Natl. Acad. Sci. U.S.A. 73, 1048-1052]. At nafcillin concentrations above 80 mM, complete inactivation occurred within 200 s. Upon removal of the excess nafcillin the inhibited enzyme was re-activated completely, with a rate constant of $2.0 \times 10^{-3} \text{ s}^{-1}$ (25 degrees C) [1, 2].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!