

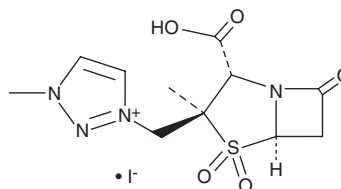
PRODUCT INFORMATION



Enmetazobactam (iodide)

Item No. 46757

CAS Registry No.: 1379594-98-5
Formal Name: 3-[[[(2S,3S,5R)-2-carboxy-3-methyl-4,4-dioxido-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-3-yl]methyl]-1-methyl-1H-1,2,3-triazolium, monoiodide
Synonym: AAI-101
MF: C₁₁H₁₅N₄O₅S • I
FW: 442.2
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

Enmetazobactam (iodide) is supplied as a solid. A stock solution may be made by dissolving the enmetazobactam (iodide) in the solvent of choice, which should be purged with an inert gas. Enmetazobactam (iodide) is sparingly soluble (1-10 mg/ml) in DMSO.

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 enmetazobactam (iodide) can be prepared by directly dissolving the solid in aqueous buffers. Enmetazobactam (iodide) is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Enmetazobactam is a β -lactamase inhibitor.¹ It has greater activity against class A β -lactamases (IC_{50} s = 0.006-0.56 μ M) than class C (IC_{50} s = 25 and 31 μ M) or class D β -lactamases (IC_{50} s = 8.7->100 μ M). Enmetazobactam restores the activity of the cephalosporin antibiotic cefepime (Item No. 23633) against 223 Enterobacteriaceae clinical isolates, 208 of which were cefepime resistant.² *In vivo*, enmetazobactam restores the ability of cefepime to reduce mortality in mouse models of septicemia induced by cefepime-resistant clinical isolates of *K. pneumoniae* or *E. cloacae*.¹ Formulations containing enmetazobactam have previously been used in combination with cefepime in the treatment of complicated urinary tract infections.

References

1. Papp-Wallace, K.M., Bethel, C.R., Caillon, J., *et al.* Beyond piperacillin-tazobactam: Cefepime and AAI101 as a potent β -lactam- β -lactamase inhibitor combination. *Antimicrob Agents Chemother.* **63**(5), e00105-e00119 (2019).
2. Crandon, J.L. and Nicolau, D.P. *In vitro* activity of cefepime/AAI101 and comparators against cefepime non-susceptible Enterobacteriaceae. *Pathogens* **4**(3), 620-625 (2015).

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.

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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