# **PRODUCT** INFORMATION



## Enmetazobactam

Item No. 30715

CAS Registry No.: Formal Name:	1001404-83-6 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, inner salt
Synonym:	AAI-101
MF:	$C_{11}H_{14}N_4O_5S$
FW:	314.3 N
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 is supplied as a solid. A stock solution may be made by dissolving the enmetazobactam in the solvent of choice, which should be purged with an inert gas. Enmetazobactam is soluble in DMSO.

### Description

Enmetazobactam is a  $\beta$ -lactamase inhibitor.<sup>1</sup> It has greater activity against class A  $\beta$ -lactamases (IC<sub>50</sub>s = 0.006-0.52  $\mu$ M) than class B or class D  $\beta$ -lactamases (IC<sub>50</sub>s = 8.7->100  $\mu$ M). Enmetazobactam in combination with the cephalosporin antibiotic cefepime (Item No. 23633) is active against 223 Enterobacteriaceae clinical isolates, including multidrug-resistant E. coli and K. pneumoniae isolates, with an MIC<sub>50</sub> value of 0.125 mg/L.<sup>2</sup> In vivo, enmetazobactam reduces mortality in mouse models of septicemia induced by E. coli, K. pneumoniae, or E. cloacae when used in combination with cefepime.<sup>1</sup>

#### References

- 1. Papp-Wallace, K.M., Bethel, C.R., Caillon, J., et al. Beyond piperacillin-tazobactam: Cefepime and AAI101 as a potent  $\beta$ -lactam- $\beta$ -lactamase inhibitor combination. Antimicrob Agents Chemother. 63(5), e00105-19 (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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