

Product Name:	Ertapenem sodium, EvoPure®
Product Number:	E008
CAS Number:	153773-82-1
Molecular Formula:	C ₂₂ H ₂₄ N ₃ O ₇ S • xNa (lot specific)
Molecular Weight:	474.51 g/mol (Free base)
Appearance:	White or light yellow powder
Solubility:	: soluble in water and sodium chloride.
Source:	synthetic
Storage Conditions:	-20°C
Description:	Ertapenem sodium, EvoPure® is a highly purified form of Ertapenem sodium. It is a broad-spectrum β-lactam carbapenem that interferes with peptidoglycan synthesis. Ertapenem sodium is soluble in water and sodium chloride.
Mechanism of Action:	β-lactams interfere with PBP (penicillin binding protein) activity involved in the final phase of peptidoglycan synthesis. PBP's are enzymes which catalyze a pentaglycine crosslink between alanine and lysine residues providing additional strength to the cell wall. Without a pentaglycine crosslink, the integrity of the cell wall is severely compromised and ultimately leads to cell lysis and death. Resistance to β-lactams is commonly due to cells containing plasmid encoded β-lactamases.
Spectrum:	Ertapenem sodium has broad-spectrum activity targeting a wide spectrum of aerobic and anaerobic Gram-positive and Gram-negative bacteria.
Microbiology Applications	Ertapenem sodium is commonly used in clinical <i>in vitro</i> microbiological antimicrobial susceptibility tests (panels, discs, and MIC strips) against gram positive microbial isolates. Medical microbiologists use AST results to recommend antibiotic treatment options for infected patients. Representative MIC values include:

- *Staphylococcus aureus* 0.12 µg/mL – >16 µg/mL
- *Escherichia coli* ≤ 0.008 – 0.5 µg/mL

For a complete list of ertapenem MIC values, [click here](#).

It is active against cephalosporin-resistant enteric organisms producing extended spectrum beta-lactamases (ESBLs) and penicillin-resistant *Streptococcus pneumoniae*. It has restricted activity against nosocomial pathogens including *Pseudomonas aeruginosa*, *Acinetobacter* species, methicillin-resistant staphylococci and enterococci.

Technical Data:

HPLC, NMR, FTIR, and MS analysis may be available. For more info, please email info@toku-e.com.

References:

Cunha BA (2002) Ertapenem. A review of its microbiologic, pharmacokinetic and clinical aspects. *Drugs Toay (Barc)* 38(3):195-213 PMID 12532175

Hammond ML (2004) Ertapenem: A group 1 carbapenem with distinct antibacterial and pharmacological properties. *J. Antimicrob. Chemother* 53(2):7-9

Pitout JD, Sanders CC, Sanders WE (1997) Antimicrobial resistance with focus on beta-lactam resistance in gram-negative bacilli. *Am J Med* 103:51

If you need any help, contact us: info@toku-e.com. Find more information on: www.toku-e.com/