Product Name: Trimethoprim

Product Number: T011

CAS Number: 738-70-5

Molecular Formula: C\textsubscript{14}H\textsubscript{18}N\textsubscript{4}O\textsubscript{3}

Molecular Weight: 290.32

Form: Powder

Appearance: White or yellowish-white powder

Melting Point: 199°C-203°C

Storage Conditions: 2-8 °C

Description: Trimethoprim is a bactericidal dihydrofolate reductase inhibitor. TOKU-E offers two forms of trimethoprim: trimethoprim (T011) and trimethoprim lactate (T012). Trimethoprim has low solubility in aqueous solution (0.4 mg/mL). Trimethoprim lactate is freely soluble in aqueous solution (19.6 mg/mL).

Mechanism of Action: Trimethoprim prevents bacteria from taking up folic acid which is used to synthesize the essential DNA nucleotide thymine.

Spectrum: Trimethoprim is a broad spectrum antibiotic used extensively against bacteria responsible for urinary tract infections.
Microbiology Applications

Trimethoprim is commonly used in clinical in vitro microbiological antimicrobial susceptibility tests (panels, discs, and MIC strips) against gram positive and gram negative microbial isolates. Medical microbiologists use AST results to recommend antibiotic treatment options for infected patients. Representative MIC values include:

- *Escherichia coli* 0.25 µg/mL - 64 µg/mL
- *Haemophilus influenzae* 0.15 µg/mL - 16 µg/mL
- For a complete list of trimethoprim MIC values, click here.

Media Supplement

Trimethoprim can be used as a selective agent in several types of isolation media:

- **Columbia Blood Agar** - *Campylobacter* selective supplement (Skirrow)
- **Columbia Blood Agar** - *Campylobacter* selective supplement (Blaser-Wang)
- **Campylobacter Agar** - *Campylobacter* Selective Supplement (Preston)
- **Columbia Blood Agar** - *Helicobacter pylori* Selective Supplement (Dent)
- **Bolton Broth** - Bolton Broth Selective Supplement
- **Campylobacter Agar Base** - Modified Preston *Campylobacter* Selective Supplement
- **Bolton Broth** - Modified Bolton Broth Selective Supplement
- **Chromogenic Bacillus cereus Agar** - Chromogenic *Bacillus cereus* Selective Supplement

References:


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