Product Name: Enramycin

Product Number: E006

CAS Number: 11115-82-5

Molecular Formula: Enramycin A: C₁₀⁷H₁₃₈Cl₂N₂₆O₃₁
Enramycin B: C₁₀₈H₁₄₀Cl₂N₂₆O₃₁

Molecular Weight: Enramycin A: 2550.21
Enramycin B: 2564.24

Form: Powder

Appearance: light tan powder

Solubility: Acids (Dilute HCl): Freely soluble
Dimethylformamide: Freely soluble
Water: Slightly soluble

Source: Streptomyces fungicidus

Storage Conditions: -20°C

Description: Enramycin is a polypeptide antibiotic produced by Streptomyces fungicidus and developed as a food additive in Japan. Enramycin is composed of two different compounds: Enramycin A Enramycin B. The ratios of A and B varies but is typically ~70:30. Enramycin is slightly soluble in water and freely soluble in dilute HCl solution.

TOKU-E offers three forms of Enramycin:

- Enramycin (E006)
- Enramycin A, EvoPure® (E018)
- Enramycin B, EvoPure® (E019)

Mechanism of Action: Enramycin acts as a MurG inhibitor involved peptidoglycan synthesis in Gram-positive bacteria. MurG catalyzes the transglycosylation reaction in the last step of peptidoglycan biosynthesis. Inhibition of this step greatly compromises cell wall integrity leading to cell lysis.

Spectrum: Enramycin has a strong antibacterial activity against Gram-positive bacteria and inhibits development of major gut flora pathogens. Resistance or cross-resistance with existing antibiotics has rarely been observed.