Product Name: Enramycin
Product Number: E006
CAS Number: 11115-82-5
Molecular Formula: Enramycin A: C_{107}H_{138}Cl_{2}N_{26}O_{31}
Enramycin B: C_{108}H_{140}Cl_{2}N_{26}O_{31}
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.