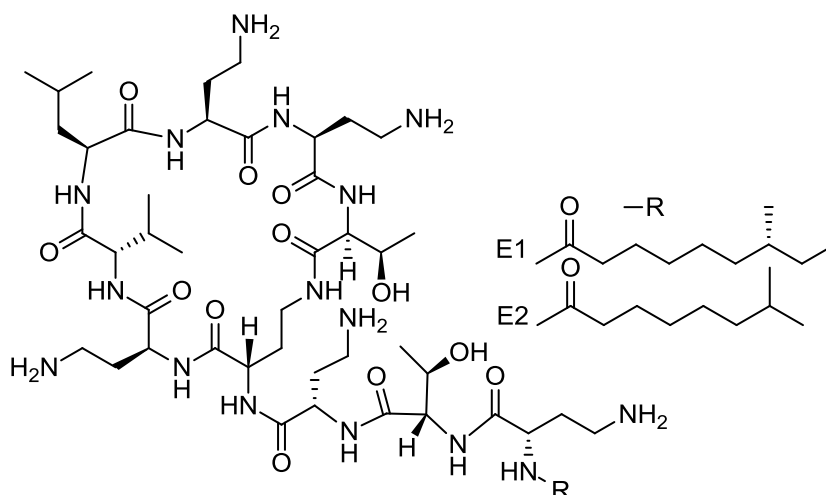


## Polymyxin E complex

Code No.: **BIA-P1319**

Pack sizes: **25 mg, 100 mg**



Synonyms : Colistin, Colimycin M, Belcomycin, Colymycin, Torazin

## Specifications

CAS #	: 1066-17-7
Molecular Formula	: C <sub>53</sub> H <sub>100</sub> N <sub>16</sub> O <sub>13</sub> (for E1)
Molecular Weight	: 1169.5
Source	: <i>Bacillus polymyxa</i>
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO. Good water solubility.

## Application Notes

Polymyxin E (colistin) is a complex of closely related cyclic peptides E1 and E2, with additional minor analogues. Polymyxin E is produced by *Bacillus polymyxa* var. *colistinus*, and is a highly basic, atypical cyclic peptide which incorporates the unusual amino acid, diaminobutyric acid. Head-to-tail coupling of lysine completes the macrocycle. Balancing the polar cyclic peptide is a hydrophobic tail with short chain fatty acids. Polymyxin E is a broad spectrum antibiotic active against Gram negative bacteria. The mechanism of action involves disruption of the bacterial outer membrane by a detergent-like effect.

## References

1. Studies on the chemical structure of colistin.1. Fractionation, molecular weight determination, amino acid and fatty acid composition. Suzuki T. et al., J. Biochem. (Toyko) 1963, 54, 25.