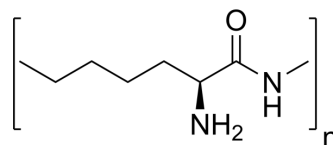


## ε-Poly-L-lysine (MW 3800-4200)

Cat. No.:	HY-W250308
CAS No.:	28211-04-3
Molecular Formula:	(C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O) <sub>n</sub>
Target:	Bacterial
Pathway:	Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	H <sub>2</sub> O : ≥ 100 mg/mL * "≥" means soluble, but saturation unknown.
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### BIOLOGICAL ACTIVITY

Description	Epsilon-polylysine is an antimicrobial peptide that can be produced by bacteria such as Streptomyces. Epsilon-polylysine inhibits the growth of microorganisms such as bacteria, yeasts and molds and is therefore often used as a green food additive and preservative in various food and beverage products. Epsilon-polylysine has a variety of properties, including thermal stability, resistance to acidic conditions, and broad-spectrum antimicrobial activity. Epsilon-polylysine can be loaded on other materials to form nanoparticles or form nanofiber membranes for targeted delivery to exert sustained antibacterial efficacy. Epsilon-polylysine is also used as a liposome stabilizer <sup>[1][2][3][4]</sup> .
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### REFERENCES

- [1]. Wang Z, et al. Metabolomic Analysis of Biosynthesis Mechanism of ε-Polylysine Produced by Streptomyces diastatochromogenes. Front Bioeng Biotechnol. 2021 Jul 30;9:698022.
- [2]. Zhou X, et al. Elaboration and characterization of ε-polylysine-sodium alginate nanoparticles for sustained antimicrobial activity. Int J Biol Macromol. 2023 Aug 16;251:126329.
- [3]. Yingying M, et al. pH-Sensitive ε-polylysine/polyaspartic acid/zein nanofiber membranes for the targeted release of polyphenols. Food Funct. 2022 Jun 20;13(12):6792-6801.
- [4]. Alemán A, et al. A novel functional wrapping design by complexation of ε-polylysine with liposomes entrapping bioactive peptides[J]. Food and Bioprocess Technology, 2016, 9: 1113-1124.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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