

Product Name: Cecropin P1, porcine

Product Number: C214

CAS Number: 125667-96-1

Molecular Formula: $C_{147}H_{253}N_{45}O_{43}$

Molecular Weight: 3338.86

Description: Cecropin P1, porcine is the first of the cecropin family to be isolated from a mammal rather than an insect. It has garnered a lot of interest for its antiviral and broad-spectrum antibacterial activities. It is also active against fungi, and has cytotoxic effects on cancer cell lines.

TOKU-E also offers:

- [Cecropin A \(C205\)](#)
- [Cecropin B \(C206\)](#)

Mechanism of Action: The antibacterial mode of action for Cecropin P1 is referred to as a "carpet-like" mechanism, in which the charged antimicrobial aligns on the outside of the cell's membrane and destabilizes the packing of the lipid bilayer, eventually causing the membrane to break down.

References: Gazit, E., Miller, I. R., Biggin, P. C., Sansom, M. S., & Shai, Y. (1996). Structure and Orientation of the Mammalian Antibacterial Peptide Cecropin P1 within Phospholipid Membranes. *Journal of Molecular Biology*, 258(5), 860-870. doi:10.1006/jmbi.1996.0293

Guo, C., Huang, Y., Cong, P., Liu, X., Chen, Y., & He, Z. (2014). Cecropin P1 inhibits porcine reproductive and respiratory syndrome virus by blocking attachment. *BMC Microbiology*, 14(1). doi:10.1186/s12866-014-0273-8