

## Data Sheet

<b>Product Name:</b>	Pep19-2.5	
<b>Cat. No.:</b>	CS-0614978	
<b>CAS No.:</b>	1322711-38-5	
<b>Molecular Formula:</b>	C <sub>135</sub> H <sub>187</sub> N <sub>37</sub> O <sub>22</sub> S	
<b>Molecular Weight:</b>	2712.23	GCKKYRRFRWKFKGKFWFWG
<b>Target:</b>	Pyroptosis	
<b>Pathway:</b>	Apoptosis; Immunology/Inflammation	
<b>Solubility:</b>	10 mM in DMSO	

### BIOLOGICAL ACTIVITY:

Pep19-2.5 is a synthetic and antitoxin peptide, blocks the intracellular endotoxin signaling cascade. Pep19-2.5 inhibits signaling of lipopeptides (LP) and lipopolysaccharides (LPS) mediated by transmembrane and cytosolic pattern recognition receptors (PRRs). The signaling cascades lead to inflammation and cell **pyroptosis**<sup>[1]</sup>. *In Vivo*: Pep19-2.5 (5 mg/kg; i.v.; single dose), combined with [Ceftriaxone](#) (HY-B0712) (15 mg/kg; i.v.; single dose) displays synergism effect and kills bacteria and eliminates bacteremia 30 min post treatment, Pep19-2.5 also notably counteracts the endotoxin-inducing potential of ceftriaxone in sepsis model of rabbit<sup>[2]</sup>.

### References:

- [1]. Heinbockel L, et al. Inhibition of Lipopolysaccharide- and Lipoprotein-Induced Inflammation by Antitoxin Peptide Pep19-2.5. *Front Immunol.* 2018 Jul 26;9:1704.
- [2]. Bárcena-Varela S, et al. Coupling killing to neutralization: combined therapy with ceftriaxone/Pep19-2.5 counteracts sepsis in rabbits. *Exp Mol Med.* 2017 Jun 16;49(6):e345.
- [3]. Jannadi H, et al. Antimicrobial peptides Pep19-2.5 and Pep19-4LF inhibit *Streptococcus mutans* growth and biofilm formation. *Microb Pathog.* 2019 Aug;133:103546.

### CAIndexNames:

Glycine, glycyL-L-cysteinyl-L-lysyl-L-lysyl-L-tyrosyl-L-arginyl-L-arginyl-L-phenylalanyl-L-arginyl-L-tryptophyl-L-lysyl-L-phenylalanyl-L-lysylglycyl-L-lysyl-L-phenylalanyl-L-tryptophyl-L-phenylalanyl-L-tryptophyl-

### SMILES:

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

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