

## CSP1

Cat. No.:	HY-P2454
CAS No.:	172889-49-5
Molecular Formula:	C <sub>103</sub> H <sub>168</sub> N <sub>30</sub> O <sub>24</sub> S
Molecular Weight:	2242.69
Sequence Shortening:	EMRLSKFFRDFILQRKK
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

Description	CSP1 is a potent and selective ComD1 receptor agonist, with an IC <sub>50</sub> of 10.3 nM. CSP1 is a major variants of competence-stimulating peptide (CSP), and it can regulate genetic transformation of <i>S. pneumonia</i> by modulating quorum sensing (QS). CSP1 can act as an antibacterial agent <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	IC50: 10.3 nM (ComD1 receptor) <sup>[1]</sup>

### REFERENCES

[1]. Yang Y, et, al. Structural Characterization of Competence-Stimulating Peptide Analogues Reveals Key Features for ComD1 and ComD2 Receptor Binding in *Streptococcus pneumonia*. *Biochemistry*. 2018 Sep 11;57(36):5359-5369.

[2]. Johnsborg O, et, al. A hydrophobic patch in the competence-stimulating Peptide, a pneumococcal competence pheromone, is essential for specificity and biological activity. *J Bacteriol*. 2006 Mar; 188(5): 1744-9.

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

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